SATURDAY

American Heart Association®
SCIENTIFIC SESSIONS 2013

DAILY NEWS

NOVEMBER 16, 2013

INSIDE

Guideline discussions, 20 LBCTs highlight Sessions' return to Dallas


credit: Matt Pasant

Roughly 20 years ago, a newly minted MD from the University of Massachusetts Medical School roamed the halls of Scientific Sessions for the first time.

He absorbed lectures about his specialty, interventional cardiology. He befriended peers and leaders from his field and beyond. He enjoyed it all so much that he returned as a poster presenter – spending weeks preparing, getting multiple critiques by senior colleagues as well as the practical advice to carry extra glue sticks just in case his printouts started peeling from the boards.

As his career progressed – from junior investigator to senior investigator, then to a leader in academic medicine – Robert Harrington, MD, FAHA, FACC, not only kept coming to Sessions, he became one of the planners. And this year, his first as Chair of the Committee on Scientific Sessions Program, he's proud to say that he and his colleagues have put together an event that will enhance Sessions' reputation as the premier gathering of cardiovascular thought in the United States.

More than 18,000 attendees from more than 105 countries will roam the halls of the Dallas Convention Center from Saturday through Wednesday. Another 1.5 million professional attendees are expected to be involved virtually, absorbing groundbreaking insights, lectures from prestigious speakers and thought-provoking discussions about basic, translational, clinical and population science.

"That's what I think makes Sessions a unique meeting, that breadth of science being presented," said Harrington, Chair of the Department of Medicine at the Stanford University School of Medicine. "Science is moving more and more toward being a team-based activity and understanding how to connect clinical observation and apply it is facilitated by getting all these different types of scientists together."

The amount of science is staggering:

- 4,176 abstracts, plus 30 late-breaking basic science abstracts
- 758 sessions – 443 original research, 315 invited
  - Of those original research sessions, 306 are posters, 128 are oral, five are Late-Breaking Clinical Trials and four are Clinical Science Special Reports
  - 20 Late-Breaking Clinical Trials will be presented, along with 19 Special Reports

"The quality and volume of the science offered at Scientific Sessions this year is remarkable – even by the extraordinarily high standards of this meeting," said AHA President Mariell Jessup, MD, FAHA, and CSSP Chair

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Get With The Guidelines targets AFib patients

There's a new tool for more effective treatment of the growing number of patients with atrial fibrillation.

The American Heart Association recently launched Get With The Guidelines®-AFIB, which facilitates healthcare providers' application of evidenced based therapies in the care of patients hospitalized for treatment of atrial fibrillation. The program provides clinical decision support and real-time reporting to assist hospitals in tracking their performance related to several key metrics.

The program is the fifth and latest module in Get With The Guidelines, which is the largest national hospital-based quality improvement program for cardiovascular disease. It identifies gaps in treatment and attempts to prevent complications and reduce risks by

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Carrying FAHA designation special

Kiran Musunuru has a long list of accomplishments for someone who's only 37 – an MD, PhD and MPH. But the title he holds most dear? FAHA.

Musunuru, who splits his time between cardiology, working as a research scientist and teaching genetics and biochemistry to undergraduates at Harvard University, earned his FAHA during last year's Scientific Sessions. It was an accomplishment he had sought since joining the American Heart Association as a Premium Professional Member in 2006.

"FAHA really takes something extra," Musunuru said. "It really signifies the highest level of commitment to the ultimate mission of the American Heart Association."

For the complete list of FAHAs, see pages 10-11.


Kiran Musunuru, MD, PhD, MPH, FAHA

Origins of FAHA

The American Heart Association was founded in 1924 by six cardiologists. It's not clear, however, exactly when fellowship programs began.

For many years, fellows were elected by individual scientific Councils. Honorees were designated either Fellows or Associate Fellows of a particular Council.

In 2000, the AHA's Science Advisory Coordinating Committee authorized the Council on Clinical Cardiology to conduct a pilot program designating elected

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TODAY AT SESSIONS

Don't miss today's highlighted presentations and events. For a complete schedule, see the Final Program or view it online at **scientificsessions.org**.

9–11:45 a.m.
Early Career: Opening General Session
Ballrooms C1 & C2

9:15–9:45 a.m.
2013 Awards for Lifetime Achievement in Cardiac Resuscitation Science and Trauma Resuscitation Science
Trinity Ballroom, Omni Dallas Hotel

2:15–3:30 p.m.
Samuel A. Levine Young Clinical Investigator Award Finalists
Room C140

2:30–4 p.m.
ReSS Best of the Best Oral Abstract Presentations
Trinity Ballroom, Omni Dallas Hotel

3:45–5 p.m.
Laennec Young Clinician Award Finalists
Room C140

5–6:30 p.m.
Early Career Reception
Hall F lobby

5:15–6:45 p.m.
ReSS Poster Session and Reception
Dallas Ballroom D-H, Omni Dallas Hotel

7–9 p.m.
AHA Cardiovascular Evening Symposium: Diabetes and Cardiovascular Disease: Current Controversies
Dallas Ballroom BC, Omni Dallas Hotel

Highlights from the Program Chair

By Robert Harrington, MD, FAHA, FACC, Committee on Scientific Sessions Program Chair

The American Heart Association is proud to welcome you to Dallas, home of our headquarters, for the 2013 Scientific Sessions. AHA staff and leadership have worked tirelessly since the conclusion of last year's meeting in Los Angeles to make sure you feel right at home for the next five days.

No matter where we convene, the annual Scientific Sessions is always home to the latest and greatest in cardiovascular medicine and research, and this year is certainly no exception. Featuring 5,000 presentations, 4,000 abstracts and 1,000 invited faculty, the 2013 program covers seven multidisciplinary cardiovascular cores, including 26 specialized programming tracks.

Today, we start things off with a full day of programming devoted to our Early Career attendees. In many ways, the EC program is one of the real highlights of the meeting, as it truly represents "the future."

By design, the morning EC sessions are broad to provide invaluable insights into general career development themes. Part one of the Early Career Opening General Session, for example, will cover topics such as how to get published in the top journals; the role that AHA can play in early career development; how to find research funding; and tips for navigating and getting the most out of the Scientific Sessions.

Part two of the morning session will feature a distinguished lineup of some of cardiovascular science's top researchers, who will discuss new research paradigms and opportunities for both clinical and basic science investigators.


Robert Harrington, MD, FAHA, FACC

The afternoon Early Career program is organized around council activity, with sessions designed to provide insights into what's hot in particular fields. Afternoon sessions will also introduce attendees to important topics such as keys to academic success and advice for getting started as an Early Career investigator.

While today's primary focus is the Early Career attendee, the presentations hit upon topics relevant to a much broader audience. Topics such as mentorship, grant writing and journal submissions are just a few examples. I encourage attendees at all stages of their careers to attend these worthwhile sessions.

In addition to today's great EC programming, we have made a concerted effort to promote networking among attendees throughout the day. This evening's Laennec Clinician awards, which highlight the exciting work of Early Career attendees, is another great networking opportunity.

The day's programming concludes with the first of three evening symposia scheduled over the course of the meeting. These symposia are excellent opportunities to continue each day's learning activities in the more informal setting of a dinner program. The programming for each is selected and planned by CSSP and consistent with the high standards of the meeting.

Tonight's offering, "Diabetes and Cardiovascular Disease: Current Controversies," will be held from 7–9 p.m. at the Omni Dallas Hotel. The symposium will cover topics including the most appropriate hyperglycemic agent(s) for a variety of patient types; the causes and effects of noncompliance with glycemic control agents; the current evidence guiding treatment selection for patients with diabetes and multivessel CAD; and the most appropriate approach – medical therapy, PCI or surgery – to manage stable coronary artery disease in patients with diabetes.

Again, welcome to the 2013 American Heart Association Scientific Sessions, the premier cardiovascular research and instructional meeting in the world. We're happy to have you here and look forward to an educational, enlightening and enjoyable week. ▼

EARLY CAREER PROGRAM SATURDAY, NOV. 16

SESSION NUMBER	SESSION TITLE	LOCATION	TIME
EC.21	Peripheral Vascular Disease – Fellows in Training Workshop	Ballroom A1	8 a.m.–5:20 p.m.
EC.02	Early Career Opening General Session – Part 1	Ballrooms C1 & C2	9–10 a.m.
EC.03	Early Career Opening General Session – Part 2: New Paradigms and Opportunities in Cardiovascular Research for Clinical and Basic Science Researchers	Ballrooms C1 & C2	10–11:45 a.m.
EC.08	Cardiac Electrophysiology Sessions for AHA Early Career Day – Part 1: Considering Electrophysiology as a Specialty	Room D227	1–1:45 p.m.
EC.12	How to Thrive as an Early Career Academic Cardiovascular Specialist *Planned by the Council on Clinical Cardiology*	Room C140	1–2 p.m.
EC.07	Challenges at the Start of Your Cardiac Surgical Practice *Planned by the Council on Cardiovascular Surgery and Anesthesia*	Room C150	1–2:30 p.m.
EC.11	Mission Possible: Keys to Early Career Academic Success – Part 1 *Planned by the Council on Basic Cardiovascular Sciences*	Room C143	1–2:40 p.m.
EC.04	Training and Funding: How to Get Started as an Early Career Investigator *Planned by the Quality of Care and Outcomes Research/Epidemiology and Prevention/ Lifestyle and Cardiometabolic Health Councils*	Room D223	1–2:45 p.m.
EC.13	Choosing Your Path *Planned by the Council on Cardiovascular Disease in the Young*	Room C144	1–3 p.m.
EC.06	How to Build a Roadmap for Your Career in Functional Genomics and Translational Biology *Planned by the Council on Functional Genomics and Translational Biology*	Room D163	1–3 p.m.
EC.01ic	Developing a Career in Physical Activity Research: Is Funding Available?	Room C146	1–3:45 p.m.
EC.10	Cardiac Imaging Boot Camp *Planned by the Council on Cardiovascular Radiology and Intervention*	Room D170	1–5 p.m.
EC.09	Interventional Cardiology Fellows Program	Room D226	1–5 p.m.
EC.05	Mechanisms and Models of Early Career Success in Cardiovascular and Stroke Nursing Science *Planned by the Council on Cardiovascular and Stroke Nursing*	Room D168	1–5 p.m.
EC.14	Cardiac Electrophysiology Sessions for AHA Early Career Day – Part 2: My Story—A Panel Discussion on the Different Types of EP Career Options	Room D227	1:45–3 p.m.
EC.17	How to Develop a Successful Research Career *Planned by the Epidemiology and Prevention/Lifestyle and Cardiometabolic Health Councils*	Room D223	3–4:20 p.m.
EC.16	Mission Possible: Keys to Early Career Academic Success – Part 2 *Planned by the Council on Basic Cardiovascular Sciences*	Room C143	3–4:45 p.m.
EC.18	Hottest of the Hot in FGTB Research *Planned by the Council on Functional Genomics and Translational Biology*	Room D163	3–5 p.m.
EC.15	Starting a Successful Career in Quality of Care and Outcomes Research *Planned by the Council on Quality of Care and Outcomes Research*	Room D222	3–5 p.m.
EC.19	Cardiac Electrophysiology Sessions for AHA Early Career Day – Part 3: Early Career EP Clinical Session	Room D227	3:15–5 p.m.

Check. Change. *Control*. helping African-Americans control hypertension

African-Americans can learn how to prevent and manage hypertension with Check. Change. *Control*., a community program launched by the American Heart Association this year. The evidence-based program uses volunteer health mentors to motivate participants to self-monitor their blood pressure and to upload and track their readings in Heart360®, the AHA's free Web-based tool.

About 43 percent of African-American men and 47 percent of African-American women have high blood pressure, according to the AHA's High Blood Pressure Statistical Fact Sheet 2013 Update. By comparison, about one-third of white men and women have hypertension.

The AHA initially provided grants of $20,000 to the top 18 markets to implement the pilot. The program has since expanded to 90 programs in 60 markets, including Los Angeles, Houston and Philadelphia. The goal is to enroll 30,000 African-Americans by the end of 2014. About 13,000 African-Americans and participants of other ethnicities have signed up so far.

As of August, more than 30,000 readings had been uploaded by nearly 9,400 participants. The results show an overall decrease in blood pressure, especially for those who started out with high blood pressure and uploaded at least two readings per month for four consecutive months. Those participants saw a 27/10.5 drop in blood pressure.


Patricia Lane, MBA, BSN, RN

American Heart Association volunteer Patricia Lane, MBA, BSN, RN, administrative director of neurosciences at Bon Secours Richmond Health System, facilitates the program in Richmond, Va. It was the mentorship component that convinced her to get involved. Overall, the program has about 1,500 volunteer health mentors, which include both healthcare professionals and people without medical experience.

"Everyone always talks about education, which is of course important. But with the mentors, there's accountability," Lane said. "There's that person there to make sure you check it, change it and control it. That's how you really become hardwired for those lifestyle changes."

Each program engages participants with strategies unique to the community. Programs include faith-based, corporate, healthcare and community models. Zumba classes have been a particularly successful strategy in Richmond, Lane said. A few dozen participants gather twice a week for a 45-minute class. They get their blood pressure checked before each class.

Program participants without access to a blood pressure monitor were given one.

"We made sure they knew how to use it, how to read it and what to do with it afterward," said Lane, who also participates in the program. Every Friday at 2 p.m., an alarm on her phone reminds her to take her blood pressure.

"There are people walking around who have no idea they have high blood pressure," Lane said. "And they don't know it means they are at higher risk for stroke and heart disease. Once they know their numbers and understand their numbers, they can do something about it."

Healthcare professionals interested in becoming a volunteer health mentor should contact local AHA offices. Local AHA staff can also provide information about enrollment events, where they can be connected with a mentor. For more information, visit **heart360.org**. ▼

CAREER PROGRESSION: JORDAN MILLER, PhD

Each day in this spot, we will profile an investigator in various career stages, from early career to distinguished veteran.

At Scientific Sessions past, Jordan Miller, PhD, noticed that poster exhibits often were overshadowed in prestige and attendance by oral presentations taking place simultaneously in different areas.

"Even the most brilliant physicians and scientists can't be in two places at once, and that problem is amplified at meetings that are this large," he said.

After Miller became a member of the ATVB Council's Committee for Scientific Sessions Programming (CSSP), it was clear that this concern was widespread throughout the Council, and the ATVB CSSP chairs – Drs. William Chilian and Greg Shelness – have continually championed changes to help improve Scientific Sessions. This year, under the leadership of Drs. Robert Harrington and Kenneth Bloch (Chair and Vice Chair, respectively of the full CSSP encompassing all councils), many of the changes discussed at the ATVB Council's CSSP meeting and elsewhere were implemented at Scientific Sessions.

"The amount of concomitant programming between posters and oral presentations is reduced this year," said Miller, who serves on the ATVB Council's CSSP and is chair of the council's Early Career Committee. "There are also 'poster professors,' who will give guided tours of each session and engage presenters. We're hoping this leads to a significant increase in attendance for the poster presentations, which is what a large number of young investigators are assigned."

Miller – a 38-year-old researcher in the Division of Cardiovascular Surgery and an assistant professor at the Mayo Clinic in Rochester, Minn. – is only a few years removed from being an early career investigator himself.

He joined the AHA in 2001 and became more involved with the organization and the ATVB Council in 2005, when he moved from the University of Wisconsin to the University of Iowa for postdoctoral training.

He remembers being in awe at his first Scientific Sessions, in 2005.

"You'd look at it and say, 'Gosh, it's sensory overload,'" he said. "I also noticed after my first few years that there was a progressive reduction of the visibility and attendance of young researchers, particularly in ATVB."

Those experiences helped convince him that he wanted to do whatever he could to help the cause of young investigators. He said his three primary mentors – Drs. Michael Joyner, Jerome Dempsey and Donald Heistad – "ingrained in me that if you get the chance to give young people the opportunities to do something great, a lot of them will."

To that end, he helped organize the ATVB Early Career Competition, which highlights work by outstanding young investigators and has created more interest in Scientific Sessions among early career members in the council.

"While I don't think the AHA will ever become an excessively early-career-centric organization, we provide balance to the equation," Miller said. "If we can contribute to something the American Heart Association is doing, terrific. If we disagree with the direction of something, we've been put in position to be listened to by ATVB and AHA leadership. It's been all I've hoped for."

Miller also is chair of the ATVB Council's Communications Committee.

"The biggest question is: How do you get young people to become members and keep them as active and engaged members in the ATVB council?" he said. "You want them to get involved so they feel they have an active voice in the American Heart Association."

He and other committee leaders recently turned to social media to get more young investigators involved. "And also to reach out to the mid-career and senior, too," he said. "It's not just about the young people, it's about everybody." ▼

MEMBER SPOTLIGHT

Peter W. Wilson, MD

Professor of Medicine in the Cardiology Division, Professor of Public Health at the Rollins School of Public Health, and Director of Epidemiology and Genomic Medicine at the Atlanta VA Medical Center

How long have you been an AHA/ASA Professional Member?

I have been attending AHA meetings since around 1980. I have been a professional member for close to 30 years.

Why did you join?

I joined because my research has focused on preventive cardiology. The fall Scientific Sessions and the spring EPI/NPAM meeting are the key meetings that I have attended over the years.

Are you involved in any AHA councils?

Yes, I am a Fellow of NPAM, now called the Lifestyle and Cardiometabolic Health Council, and a Fellow of the EPI Council. I am currently chair of the Lifestyle and Cardiometabolic Health Council.

What do you enjoy most about these roles?

Council activities and their committees are the gears of the American Heart Association. They keep the engine going. Volunteers are the fuel and oil that keeps the AHA moving forward.

How else are you involved with AHA?

I have worn a variety of AHA hats. I have represented the AHA at a smoking tax legislation meeting at the Georgia State House, participated in local AHA fundraising walks in Atlanta and attended Lobby Day in Washington, D.C. I also have sat on a committee that reviews the AHA scientific publications that are proposed and published in the AHA journals.

Why is membership valuable to you?

AHA membership opens doors to getting involved. When positions on committees are open, the AHA first turns to the current members to "get the job done." There are a lot of tasks that need to be organized in order for the large AHA meetings to take place. Position papers have to move forward and other activities to be coordinated. The AHA members contribute a great deal to make those things happen.

What message would you like to convey to your colleagues about being an AHA member?

Volunteer your time and efforts to the AHA. Get involved. There are all sorts of opportunities. We have a common goal to reduce the burden of cardiovascular disease and each volunteer is highly valued. ▼

Inspiring Possibility: One investigator's insights from Early Career Day at Scientific Sessions

Written by Viviany R. Taqueti, MD, a member of the American Heart Association's Membership & Communications Committee, Clinical Cardiology Council; this viewpoint is adapted from her volunteer activities with AHA's *Connections* newsletter.

A November trip to Chicago served as the culmination of an elective cardiology sub-internship I would later recognize as a turning point in my medical training. It was my first time attending the American Heart Association Scientific Sessions, and in 2006, I anticipated discussions of drug-eluting stent safety, and results from the Open Artery Trial (OAT) assessing late angioplasty for occluded infarct-related arteries. Actually, the highlight for me took place just prior to the opening plenary session, as I watched Professor Eugene Braunwald address a crowd of trainees with a precursor to his lecture on "Adventures in Cardiovascular Research."

Now a cardiology fellow at Brigham and Women's Hospital, I have since had the privilege of interacting with Dr. Braunwald at our own Fellows' Reports. I have heard him retell the story of the advent of transbronchial and later transseptal cardiac catheterization; of defining the natural history of severe calcific aortic stenosis prior to the adoption of widespread surgical intervention; of the dramatic discovery of "functional aortic stenosis" (now known as hypertrophic obstructive cardiomyopathy) in a young patient in the operating theater; of the realization that carotid sinus stimulation not only alleviated angina, but normalized ST segment elevation in a patient in the throes of MI, leading to a revolutionary idea in thrombolysis.

The narratives are extraordinary. Speaking in a low rumble, he is crystal clear, careful to identify events by the proper chronology, and to give credit to co-investigators he mentions by full names. He refers to his colleagues and their collective scientific legacies as his intellectual offspring. He emphasizes the importance of focusing on big questions and the act of choosing a mentor as the single most consequential career decision one can make. He peppers his stories with personal anecdotes of unlikely collaborations started at the taxi stand, or over dinner at the local housing complex of the former National Heart Institute. And then he goes on to summarize "10 tips for a successful career in translational research."

Effortlessly, he continues to command a crowd, bringing together generations that include visiting students and longtime disciples. We listen in silence, amazed and delighted by the old stories. In them, cardiology as we know it comes to life. In our minds, we contrast the world he depicts with the more familiar hospital wards and research laboratories of today. He recounts how, at my age, he became Chief of Cardiology, and not long thereafter, Chair of Medicine. He talks of the nonexistence of investigational review boards or of informed consent. At its simplest, there was an observation. And from that careful observation, there were possibilities.

Bearing witness to these stories is invaluable. For me, these experiences provide context for what we set out to do every day in academic cardiology. There is little more powerful than hearing Dr. Braunwald tell of a difficult time, then watch him light up as he describes how a perceived mistake blossomed into discovery. It provides a humanizing and inspiring complement to reading about his latest successful randomized clinical trial.

As many of us wrestle with the future of academic research in an era of constraints, his words provide perspective. Trainees of my generation grew up with the ideality of the academic physician-scientist as the "triple threat" master clinician, scientist and educator. Listening to Dr. Braunwald, I am reminded that this construct is actually relatively new, matured over the last half-century with the advent of hypothesis-driven research. This opened up an already rich world of clinical observations to even richer possibilities afforded by the ready path from bench to bedside, and back.

These days, it can be difficult to maneuver the wards or labs of academic institutions without daily reminders of the growing demands and all-consuming complexities inherent in modern clinical care, scientific research, and post-graduate training. In an increasingly scrutinized clinical environment that values volume, and in the future, outcomes; an increasingly competitive research environment that rewards big science while remaining vulnerable to political volatility; and an increasingly strained training environment that defaults to longer, specialized tracks while simultaneously limiting hours and hands-on experience, many are questioning the viability of the path to "triple threat."

But as Dr. Braunwald notes, much as the concept of the academic physician-scientist evolved before, it is evolving

EARLY CAREER DAY continued on next page

AHA journals ranked at top of their fields once again

American Heart Association journals celebrated another notable year, marked by top rankings in their fields, new digital offerings, and improved features and benefits.

"Our main objective remains constant: providing the most important evidence-based information and expaert perspective in cardiology today," said *Circulation* Editor-in-Chief Joseph Loscalzo, MD, PhD, FAHA.

Circulation continued its top ranking in the Peripheral Vascular Disease and the Cardiac & Cardiovascular Systems subject categories (2012 *Journal Citation Reports®*, Thomson Reuters, 2013). It ranks No. 1 for Impact Factor, 5-Year Impact Factor, *Article Influence®* Score, and *Eigenfactor®* Score.

Arteriosclerosis, Thrombosis, and Vascular Biology (ATVB), *Circulation Research*, *Hypertension*, and *Stroke* each claimed the No. 1 spot in its respective immediate field of study.

The *Circulation*-branded journals — *Circulation: Arrhythmia and Electrophysiology*, *Circulation: Cardiovascular Genetics, Circulation: Cardiovascular Imaging, Circulation: Cardiovascular Interventions*, *Circulation: Cardiovascular Quality and Outcomes*, and *Circulation: Heart Failure* — remained among the leading cardiology journals. Most are ranked as the top journal in their subspecialty area, and all are among the top 15 in the Cardiac & Cardiovascular Systems subject category. For more details on rankings for AHA journals, visit **www.ahajournals.org/site/misc/Impact_Factor.xhtml.**

AHA journals' apps are available as free downloads at the iTunes App Store, including free sample issues for each journal. The initial free trial periods have expired for the Wolters Kluwer Health apps, with full content now limited to member and non-member subscribers. To claim access to the iPad editions of the journals to which you subscribe, visit **www.ahajournals.org/site/misc/ipadapps.xhtml** for instructions. *JAHA – Journal of the American Heart Association* is always accessible for free.

The AHA Scientific Statements and Guidelines for 2012, collectively published in January as a free iPad supplement, also include the AHA/ASA "Heart Disease and Stroke Statistics—2013 Update." The supplement is free through any of the 11 AHA journal apps produced by Wolters Kluwer Health. If you don't have an iPad, you can access all AHA Statements and Guidelines at **my.americanheart.org/statements.**

At **www.ahajournals.org**, AHA/ASA members have online access to full content, depending on membership level. Anyone can access tables of contents and article abstracts, sign up for electronic table of contents alerts and RSS feeds, and read Editor's Picks.

The six *Circulation*-branded journals successfully transitioned to digital-only publications in January, allowing them to publish an average of 30 percent more content than when launched in 2008. Authors also benefit from no color charges within articles.

The AHA journals further support their global author community with services aimed at improving the publication experience. Benefits include unparalleled global reach and exposure in academic, research and healthcare institutions; potential inclusion in the AHA's Science News media release program that generates nearly 10 billion media impressions annually; and robust multi-channel marketing generating more than 24 million global market impressions each year.

Visit the AHA HeartQuarters (booth 339) or Wolters Kluwer Health-Lippincott Williams & Wilkins (booth 1613) in the Science & Technology Hall to check out the AHA journals' apps and other new features; pick up a complimentary sample copy of any of the AHA's five print journals; and information for authors, members and subscribers. ▼

EARLY CAREER DAY

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again. The profound, perhaps inevitable changes underway are providing new opportunities for creative thinking, including better utilization of available resources by forging new collaborations to approach existing challenges. As he hints, the thrombocardiologist of the 20th century is becoming the diabetocardiologist of the 21st, and so on. Opportunity is here, and those that persevere in novel ways, guided by an inner compass grounded in promoting health and healing patients, will make important contributions.

And therein lies the value of activities like Early Career Day. It is through these kinds of programs that I have had the opportunity to interact informally with the greats of our profession, to hear from thought leaders in unconventional forums as they share a bit about their experiences as they happened, with sometimes surprising results. These reflections are critical for fostering context and confidence, a sense of possibility, particularly beyond the confines of any one local institution. It is easy to underestimate the impact this can have on trainees.

Back at McCormick Place later that Saturday, I watched with pride as the second-year fellow with whom I had worked as a medical student presented the case of a patient with an unusual manifestation of amyloid heart disease for the Laennec Clinical Cardiology award; that fellow would later become my attending and research collaborator. It was the first time I felt I was part of a cardiology community. And it was inspirational. ▼

JAHA now indexed by Thomson Reuters (formerly ISI)

JAHA – Journal of the American Heart Association is now indexed in the Thomson Reuters (formerly ISI) Science Citation Index Expanded and will receive an Impact Factor in 2014. This is recognition of the stature of the journal and will make publication in *JAHA* more valuable to authors by further enhancing visibility and discoverability of all the articles published.

Coverage of *JAHA* will include all published content beginning with Volume 1, 2012.

Representing all 16 scientific councils, *JAHA* is the voice of the entire American Heart Association and American Stroke Association. The journal's mission is to provide a holistic approach to publishing that offers every AHA/ASA member the opportunity to share unique interests across all cardiovascular and cerebrovascular fields.

In less than two years, *JAHA* has accelerated scientific discovery and enriched education by providing free online access to, and unrestricted noncommercial reuse of, all published articles.

This year, *JAHA* is not only leading the Open Access movement in its field, but remains vigilant and committed to:

- Quality Science: *JAHA* underwent a rigorous evaluation of published content before being accepted by Thomson Reuters.
- Compliance: *JAHA* became fully compliant with new mandates from Research Councils UK and Wellcome Trust.
- Expanded Reach: Articles are now automatically deposited in PubMed Central (now PMC) on publication as required by the National Institutes of Health, Wellcome Trust and other funding agency mandates. This benefits authors and readers alike.

Other Highlights and facts about JAHA's progress

- In 2012, more than 40 percent of submissions came from outside the United States, including 8 percent from Japan, 5 percent from the United Kingdom, 5 percent from Canada and 4 percent from Germany.
- Median time from submission to first decision is less than 25 days.
- Articles are posted online within four weeks of acceptance, after payment of the Article Publication Charge. As an Open Access journal, the payment of an Article Publication Charge is required prior to publication. AHA/ASA members are eligible for discounted Article Publication Charges.
- *JAHA* offers authors the ability to present all aspects of their work. There are no restrictions on article length and there is unlimited use of color images and video.
- Immediately on publication, *JAHA* content is available in MEDLINE®/PubMed®/Index Medicus and PMC, the free full-text archive of PubMed, as well as 17 additional databases.
- An iPad/smartphone app is available for free to download providing any-time access to *JAHA* articles.Scan the QR code to access.

You can pick up a free *JAHA* booklet with featured articles, information for authors, and more at AHA HeartQuarters (booth 339) and from Wiley (booth 1012). Visit online at **jaha.ahajournals.org**. ▼

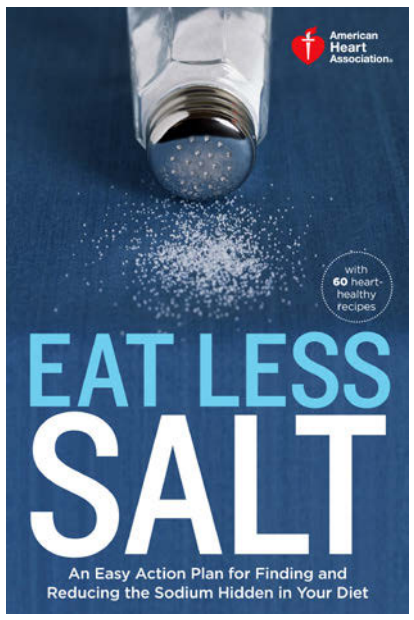
Eat Less Salt offers recipes and tools to lower salt consumption

With processed foods and restaurant meals contributing more than 75 percent of the sodium in our diet, *American Heart Association Eat Less Salt* can be a resource to help your patients reduce their sodium intake whether they're eating out or at home.

Far more than a cookbook, this is a healthy lifestyle book that offers easy, realistic advice for cutting down on sodium — from understanding nutrition labels to recognizing popular "salt traps." It also provides tips for keeping sodium in check when eating out and encourages readers to watch the salt in foods such as processed cheese, seasoned bread crumbs, canned broth or vegetables, and even fresh poultry.

Experts agree that increasing awareness is the first step to reducing sodium.

"Read the label, read the label, read the label," said Rachel Johnson, PhD, MPH, RD, FAHA, chair of the American Heart Association's Nutrition Committee and professor of nutrition and medicine at the University of Vermont in Burlington. "The sodium has to be listed. Also, be careful when considering herb mixes because they may include salt."



Eat Less Salt also includes 60 new recipes for popular foods that are usually high in sodium. They include lower-sodium versions of take-out favorites such as beef and broccoli, hot and sour soup, chicken nuggets and pizza; classic comfort foods including country-fried chicken, lasagna, chili, chicken pot pie, potato salad and green bean casserole; and popular restaurant dishes such as tortilla soup, pad Thai, enchiladas and chicken Parmesan.

"A big limiting factor to reducing sodium is that not enough people are cooking. So much of our salt is from prepared, processed and restaurant foods," Johnson said. "Until we can further reduce the amount of sodium in our food supply, lower-salt recipes are so helpful."

Considering that Americans consume an average of more than 3,400 milligrams of sodium daily – far more than the American Heart Association recommends – *Eat Less Salt* provides important health information. It explains how too much sodium can raise your blood pressure, putting you at risk for heart attack, stroke and other cardiovascular diseases.

Eat Less Salt was released in March and is available at **ShopHeart.org**, bookstores and other online book sellers. ▼

Heart-Check leads consumers to quality heart, stroke care

The American Heart Association is making it easier for patients to identify the best medical care for their heart health.

Building on the success of the Heart-Check mark that consumers have used to recognize heart-healthy food in the grocery store for 18 years, the AHA has launched a revamped interactive website that lets patients easily identify medical centers that have earned the Heart-Check hospital accreditation and/or certification.

Using the website, patients can identify accredited and certified hospitals for the type of care they're seeking, locate the nearest centers and learn what the accreditation means for patient care.

"Heart-Check lets individuals know that hospitals are ready and fully capable of providing high-quality heart disease and stroke care," said Gregg C. Fonarow, MD, FAHA, FACC, chair of the Hospital Accreditation Science Committee and director of Ahmanson-UCLA Cardiomyopathy Center.

The AHA has granted accreditation and/or certification to more than 1,100 hospitals in the United States since the Hospital Accreditation program was launched in 2011.

The accreditation and certification program comprises several levels reflecting the expertise of the facility, including:

- Comprehensive Stroke Center Certification
- Primary Stroke Center Certification
- Advanced Certification in Heart Failure
- Heart Attack (STEMI) Receiving Center Accreditation
- Heart Attack (STEMI) Referring Center Accreditation

The hospital accreditation and certification underscores the important decisions patients make about their health and the need for them to be better informed about which services meet AHA standards, Fonarow said.

"Better-informed choices and selecting hospitals where evidence-based therapies are more consistently applied can lead to better recoveries as well as a lower risk of having recurrent cardiovascular or stroke events and ending up back in the hospital," he said.


Gregg C. Fonarow, MD, FAHA, FACC

Fonarow said the Hospital Accreditation program is an important tool for patients. But he cautioned that it shouldn't be the focus in an emergency situation.

"The time that someone is having an acute myocardial infarction or a stroke is not the time to go online and find a hospital with the Heart-Check mark," Fonarow said. "Those individuals need to call 9-1-1 and activate EMS for immediate care."

For more information regarding the American Heart Association's Hospital Accreditation/Certification programs, or the Heart-Check mark, please visit **www.heart.org/accreditation** or **www.heart.org/myhospital.** ▼

Taking aim in the global fight against NCDs

For the first time, governments worldwide will be accountable for progress against heart disease, stroke and other non-communicable diseases, thanks to an international plan to prevent and control NCDs.

As member of the Noncommunicable Disease Alliance (NCD Alliance), the American Heart Association advocated strongly to help develop the World Health Organization's global monitoring framework, which includes nine global prevention and control targets and 25 progress indicators. In May, U.N. member states unanimously adopted the framework and endorsed the WHO's Global NCD Action Plan.

The most ambitious target is the "25 by 25" goal, which calls for a 25 percent reduction in premature mortality from NCDs by 2025. Other targets aim to combat physical inactivity, sodium intake, raised blood pressure, obesity, diabetes and other modifiable risk factors; to promote drug therapy to prevent heart attack and stroke; and to increase availability of medicines and technologies to treat NCDs.

More than 36 million people die worldwide each year from cardiovascular diseases, cancer, respiratory diseases, diabetes and other NCDs combined, according to the WHO. That number is expected to climb to 44 million by 2020.


Ralph Sacco, MD, FAHA

Economically, the global burden of NCDs is projected to top $47 trillion in treatment costs and lost wages over the next two decades, according to a 2011 study from the World Economic Forum and the Harvard School of Public Health. The annual global cost of cardiovascular diseases is estimated to increase from $863 billion in 2010 to more than $1 trillion by 2030.

Such data helped convince the U.N. to address what has become a global crisis. American Heart Association CEO Nancy Brown served as a representative for non-governmental organizations on the U.S. delegation at the 2011 summit on NCDs. It was only the second U.N. meeting ever to deal with health, the first targeting HIV/AIDS.

"The 2025 goals aren't meant to be easy," said AHA Past President Ralph Sacco, MD, FAHA, current co-chair of AHA's International Committee and chairman of neurology at the University of Miami Miller School of Medicine. "It's going to take a lot of collaborative, aggressive, preventive efforts. The AHA has been there from the start and is actively engaged in trying to get these targets reached, both domestically and internationally."

Aggressive targets set

In addition to the overall mission to improve the cardiovascular health of all Americans through programs targeting hypertension, healthy diet and physical activity, the AHA's domestic agenda includes ensuring Americans receive preventive and secondary access to care through the Affordable Care Act as well as a new state-level project in partnership with the Robert Wood Johnson Foundation to reduce obesity rates in the U.S.

Globally, the AHA is working with international cardiology groups to replicate or adapt its evidence-based programs to help other countries reach the WHO targets. In Brazil, the association has partnered with the Brazilian Society of Cardiology to adapt the Hands-Only CPR campaign and Go Red For Women initiative.

The AHA also recently finalized an agreement with the European Society of Cardiology to pilot Get With The Guidelines in Europe. Get With The Guidelines is AHA's hospital-based program that has successfully improved care for people with stroke, heart failure, atrial fibrillation and cardiac arrest by promoting consistent adherence to the latest scientific evidence.

"It is because of some of these AHA programs that we've seen a reduction in cardiovascular disease and stroke mortality in the U.S. over the past decade," Sacco said. The cardiovascular disease mortality rate in the U.S. dropped 31 percent from 2000 to 2010. The mortality rate for stroke dropped 36 percent over that same time. "We hope applying these programs in other countries has similar success."

The AHA is also giving small grants to cardiology societies in Brazil, Mexico, Colombia, Chile and Argentina to support initiatives aimed at supporting their national plans to reach the "25 by 25" goal.

In January, the U.N. granted the AHA special consultative status with the Economic and Social Council, the group that creates policy recommendations for the U.N. and its member states.

"The designation opens the door for AHA to talk to U.N. officials about approaches to cardiovascular disease and stroke," Sacco said.

Researchers and healthcare professionals working in cardiology, neurology and related fields worldwide will be impacted by the Global NCD Action Plan. Learn how you can help to ensure follow-through of the plan in your country by visiting The NCD Alliance at **ncdalliance.org**. ▼

American Heart Association | American Stroke Association®

PROFESSIONAL MEMBERSHIP

my.americanheart.org

Welcome, New 2013 American Heart Association Fellows

As a Fellow of the American Heart Association/ American Stroke Association, you are a part of one of the world's most eminent organizations of cardiovascular and stroke professionals. The American Heart Association recognizes your scientific and professional accomplishments and volunteer leadership and service.

Fellows, stop by the FAHA Lounge in the Hall B to relax, network and recharge.

If you are interested in Fellowship, please stop by Booth 339 to learn more.

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fellows as Fellows of the American Heart Association. The entire science Council-based fellowship program was changed in 2001 to reflect this new designation, allowing the FAHA (pronounced "FAH-ha") title to be used by all 16 Councils.

There are now 4,574 active FAHAs. The number of new honorees selected each year depends largely on the number of applicants, but in any given year a class of about 100 new FAHAs are chosen in the spring and fall.

All new FAHAs receive an official election letter and certificate and are encouraged to attend their individual Annual Council Dinners during the year. The amount of pomp and circumstance also varies by Council. Some hold official presentation ceremonies and other simply ask recipients to stand up and be recognized during their annual dinner.

Benefits, criteria

FAHAs receive many benefits during Scientific Sessions and throughout the year, including early registration access prior to the conference and eligibility to nominate FAHA candidates.

During Sessions, they receive a special ribbon on their name badge which gives them exclusive access to the conference's FAHA lounge, where members can relax and mingle with other FAHAs.

The criteria for fellowship vary slightly by Council, but a few common rules apply:

- Fellowship is open to physicians, scientists, nurses and other healthcare professionals who have been an AHA member for at least two years with a membership level of Premium Professional or Premium Professional Plus.
- Applicants must have a sponsor who is an active FAHA.
- Applicants must be able to demonstrate evidence of scientific, clinical and/or educational contributions that support the AHA/ASA's mission of building healthier lives free of cardiovascular diseases and stroke.
- Applicants must show evidence of significant volunteer service and/or leadership within the AHA/ASA. While the criteria for international candidates are the same as for domestic members, international members can show volunteer leadership and/or service in organizations or societies similar to the AHA from their own countries.
- Applications are peer reviewed.

Once the FAHA title is earned, recipients must maintain membership at the Premium Professional or Premium Professional Plus level in order to maintain active FAHA status.

Michael H. Criqui, MD, MPH, FAHA, shares Musunuru's appreciation for the designation.

In the late 1970s, Criqui earned what at the time was an associate fellowship, followed later by full fellowship status.

Criqui is a past chair of the AHA's Interdisciplinary Committee on Prevention and a chair of the Council on Epidemiology and Prevention from 2000 until 2002. Criqui, who now serves as Distinguished Professor and Chief, Division of Preventive Medicine at the University of California, San Diego School of Medicine, said the name of the honor may have changed over the years but the importance hasn't.

"In my judgment, the most important professional organization I belong to is the American Heart Association," he said. "I am proud of being a FAHA." ▼

What FAHA Means to Me

"Receiving the FAHA designation was an honor and privilege. Being a FAHA is a sign of excellence that we earn from our colleagues who recognize our scientific and clinical accomplishments."

Hossein Ardehali, MD, PhD, FAHA
Northwestern University, Feinberg School of Medicine
Chicago, IL
Council on Basic Cardiovascular Sciences (BCVS)

"As a young investigator in Canada, being a FAHA has provided a greater sense of belonging within the AHA and opportunities for mentorship and collaboration within the broader cardiovascular community."

Kristian B. Filion, PhD, FAHA
Assistant Professor of Medicine
McGill University, Montreal, QC, Canada
Council on Epidemiology and Prevention (EPI)

"FAHA means peer acknowledgement of contributing to a professional group of experts and leaders in cardiovascular and/or cerebrovascular science and medicine by research, clinical practice, teaching and volunteering."

Kenneth I. Maynard, PhD, FAHA
Head, External Innovation, TSU Aging
Sanofi US, Inc, Bridgewater, NJ
Stroke Council

"It is an honor to be a FAHA, which to me means I am one small part of the 'heart' of the organization — the remarkable network of devoted volunteers who work with the AHA to achieve its goals of improving cardiovascular health for all Americans."

Dariush Mozaffarian, MD, DrPH, FAHA
Co-Director, Program in Cardiovascular Epidemiology
Associate Professor of Medicine and Epidemiology
Harvard School of Public Health, Boston, MA
Council on Lifestyle and Cardiometabolic Health

"Becoming FAHA is an honor, recognition by the AHA of excellence in volunteer service and scientific and clinical contributions, and a statement of my commitment to furthering the mission of the AHA to build healthier lives, free of cardiovascular diseases and stroke."

L. Kristin Newby, MD, MHS, FAHA
Professor of Medicine
Duke University Medical Center, Durham, NC
Council on Clinical Cardiology (CLCD)

"Being a FAHA in the Council for High Blood Pressure Research is an honor since it is recognition by my peers of service to the Council and my scholarly activities."

Jane F. Reckelhoff, PhD, FAHA
Billy S. Guyton Distinguished Professor Director, Women's Health Research Center University of Mississippi Medical Center, Jackson, MS
Council for High Blood Pressure Research (CHBPR)

Teaching Gardens planting seeds for healthy change in grade schools

American Heart Association Teaching Gardens planted at elementary schools in 31 states are educating kids firsthand about the importance of healthy diets.

The AHA teamed with child-nutrition activist and philanthropist Kelly Meyer to create these real-life learning laboratories, where children are taught how to plant seeds, nurture growing plants, harvest produce and ultimately understand the value of good eating habits. More than 200 gardens are reaching more than 93,000 students and countless parents and siblings.

In Dallas, Moss Haven Elementary School has created a "farm" with multiple herb, vegetable and fruit beds, a compost area, row crops, native plants, indoor hydroponics and chicken coops.

"This has made an impact on our whole community, and the kids are leading the way for change," said Kim Aman, a Moss Haven teacher and Teaching Garden champion. "When we started our farm we wanted kids to get outside more and learn about science in the field. As we got going, we noticed that we were impacting our students' health as well. We compost in our cafeteria and bring it to the farm for soil amendment."

While the country struggles to address childhood obesity, Teaching Gardens are beginning to change the culture of healthy eating at schools. Research shows:

- Students are more interested in vegetables.
- Teachers believe kids are eating more vegetables at school – from sack lunches to the serving line.
- The cafeteria has fewer fried vegetables and more fresh vegetables.
- Schools are including parents in their garden activities.
- About two-thirds of schools incorporate the gardens into specific grade-level curriculum.

Aman's motto? If children grow it, they will eat it.

"We have kids who never ate veggies, but they'll try our Swiss chard, banana peppers, kale and eggplant," she said. "We have taste tests in the hall on the way to recess where kids try samples of things growing in the garden. They weigh in their opinions on butcher paper and there are always overwhelmingly positive comments on the things they try."

Some areas of the country have even adopted Vertical Teaching Gardens, which can be grown inside classrooms in climates where growing can't be done outdoors during the school year.

Aman thinks everyone should take a look at their habits and what they're serving their kids.

"Being unhealthy crosses all walks of life. The more we can get Teaching Gardens in our schools, the better off the health of our nation will become," Aman said. "Getting involved at the district decision-making level is important as well. They have funding and resources that can support this movement."

For more information, visit **heart.org** and **teachinggardens.wordpress.com**. ▼

Kim Aman

Claiming CME/CE at Scientific Sessions

Healthcare professionals attending Scientific Sessions can claim and print CME/CE certificates.

- Sign in at **learn.heart.org** using your Professional Education Center (PEC) username and password. You can create an account if you don't have one.
- Find the courses you are registered for under the "Course Catalog" tab.
- Enter the authorization code you received with your attendee badge. Attendees of the AHA Cardiovascular Evening Symposia will receive authorization codes at each event.
- Complete the evaluation.
- Claim your credit(s).

International attendees can obtain their attendance verification certificate at the registration center. For a full list of conference accreditation statements and credit hours, visit **scientificsessions.org**.

ATRIAL FIBRILLATION

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focusing on therapies that are known to be the most effective.

AFib accounts for one-third of hospitalizations for irregular heartbeats. The number of AFib patients is expected to rise to 12 million by 2050 as the U.S. population ages.

Over the past two decades, hospital admissions of AFib patients grew by 66 percent, with treatment costs reaching an estimated $26 billion annually.

"We believe that if you can control the complications of atrial fibrillation, then you can reduce hospital readmissions," said William Lewis, MD, chief of cardiology at MetroHealth Medical Center, Director of Heart and Vascular Center at MetroHealth Medical Center, professor of medicine at Case Western Reserve and Chair of the Get With The Guidelines-AFIB Clinical Work Group.

The program includes data elements and measures associated with the use of blood thinners or anticoagulants for treating AFib patients. While studies have shown that such therapy, along with patient monitoring, could reduce the risk of stroke in AFib patients by 68 percent, many healthcare providers didn't prescribe it out of concern for complications.

Get With The Guidelines-AFIB helps minimize risks by helping physicians identify patients who can benefit from and are appropriate for blood thinner therapy. The program also provides hospitals and physicians with patient education materials to better equip patients to comply with the recommendations for managing their condition and associated risk after discharge from the hospital.

A retrospective analysis of AFib patients who already had experienced a stroke showed that use of a complementary Get With The Guidelines program focused on stroke patients could significantly improve the use of blood thinners, increasing the number of eligible patients who could receive the drug therapy to 95 percent.

"We were able to move the bar higher in our goal of saving lives," Lewis said.

The appropriate use of blood thinners isn't the only treatment promoted in Get With The Guidelines-AFIB. The program also helps health providers monitor the use of antiarrhythmic drugs and heart rate control therapies.


William Lewis, MD

Get With The Guidelines-AFIB includes an online data tool that helps healthcare providers identify AFib patients at risk of stroke and provides clinical decision and technical support, including quality improvement consultation from a dedicated field team. The program features access to clinical tools and resources, including webinars and education, and enables a hospital to collect data that can be benchmarked against other U.S. hospitals.

Get With The Guidelines-AFIB was developed by an advisory group composed of electrophysiologists, clinical cardiologists, an advanced practice nurse; and experts in heart failure management, neurology, hematology, pharmacology and anticoagulation management.

Enrollment for Get With The Guidelines-AFIB began in June. Overall, more than 42 percent of U.S. hospitals participate in the AHA's Get With The Guidelines program, comprising a database of nearly 5.5 million patient records. The 12-year-old program also offers modules for the treatment of stroke, heart failure, resuscitation and ACTION Registry. ▼

Hands-Only CPR kiosk helps teach travelers lifesaving skill on the fly

Some people play games on their phones, read a book or nap while waiting for a flight. But travelers at Dallas/Fort Worth International Airport can use their idle time to learn how to save lives at a Hands-Only™ CPR kiosk.

The kiosk, which was placed in Terminal C, Gate 7 in July, allows hands-on practice with a CPR manikin and an automated practice-while-watching CPR program. It's part of the American Heart Association's goal of increasing the number of people trained to save lives.

"A lot of people at the airport are sitting around, and they have some down time, and they can put that down time to good use and learn how to do CPR," said Ahamed Idris, MD, a professor of Surgery and Internal Medicine at the University of Texas Southwestern Medical Center in Dallas.

Idris, who also serves as a volunteer for AHA's Emergency Cardiovascular Care (ECC) programs, said a critical shift in thinking occurred within the last decade after a shortened training course resulted in improved CPR performance. Trainees who took a 20-minute course showed better performance than those taking a three- to four-hour class. Those results also held over time, Idris said.

The Hands-Only CPR kiosk at Dallas/Fort Worth International Airport.


Ahamed Idris, MD

"This was a real paradigm shift in our understanding of how people learn CPR," said Idris, who, along with other ECC volunteers, help create and revise the *AHA Guidelines for CPR and ECC* every five years.

Hands-Only CPR fast, simple

Even without formal training, anyone can be a lifesaver by remembering the two steps to Hands-Only CPR: First call 9-1-1, then push hard and fast in the center of the chest, preferably to the beat of the classic disco song, "Stayin' Alive," until help arrives. With Hands-Only CPR, you don't use rescue breaths.

The DFW kiosk's video program shows the steps of Hands-Only CPR, followed by a practice session and a 30-second CPR test. Through the aid of a touch screen, the kiosk provides feedback about the proper hand placement and the depth and rate of chest compressions.

Results are electronically sent to the AHA, which has teamed with American Airlines and DFW Airport on the six-month pilot program. The results are being analyzed to help determine the overall effectiveness of the kiosk as a training methodology and to determine any revisions to the machine that could enhance the user's experience.

In the first few days it was in place, some 700 people used the kiosk, exceeding expectations, Idris said. By mid-November, roughly 4,500 passengers had used it.

"We hope the Hands-Only CPR kiosk at DFW Airport really takes off," he said. "We'd love to see other high-traffic places do the same so more people can learn this lifesaving skill."

Jeral Ahtone, MD, area medical director with American Airlines Occupational Health Services, said travelers can take comfort in this innovative sort of training.

"The more lifesavers we have at the airport, the better off we all are," he said. "It takes just a couple of minutes, and you never know when or where you might need to save a life."

For more information about Hands-Only CPR, visit **www.heart.org/handsonlycpr.** ▼

SCIENTIFIC SESSIONS

continued from page 1

in 2009 and 2010. "There is so much to hear, so many people with whom to interact and so much new information that may directly impact your day-to-day job no matter your specialty or interests. It is thrilling and relevant."

With everything spread across 26 programming tracks, there is clearly plenty for everyone. Yet a handful of activities merit special recognition.

Clinical Practice Guidelines

In 2008, the National Heart, Lung, and Blood Institute initiated a series of cardiovascular prevention guidelines by sponsoring rigorous, comprehensive, systematic evidence reviews on assessment of cardiovascular risk, lifestyle modifications that reduce risk, and management of elevated blood cholesterol and body weight in adults. In 2013, the AHA and the American College of Cardiology were assigned the task of finalizing these cardiovascular prevention guidelines, along with other stakeholder and professional organizations.

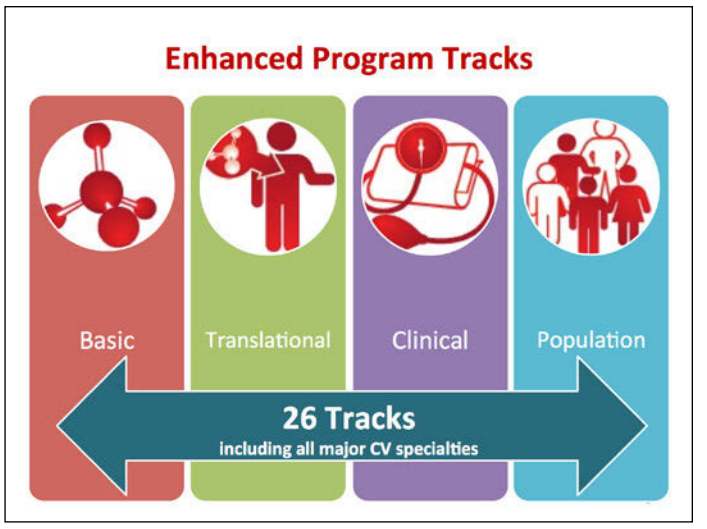
Pending publication of the Clinical Practice Guidelines for Cardiovascular Prevention, on Wednesday, these guidelines will be the subject of in-depth examination by the presidents of both AHA and ACC, as well as panelists representing the writing groups for each guideline. Harrington described the session as a discussion of "how we got here, and where we're taking it from here."

"Maybe the most fun and interesting will be a panel discussion to flesh out some of the questions everybody wants to know and put it all in perspective," Harrington said.

Global Congress on Physical Activity

Did you pack any athletic shoes? Be sure to wear them with your "work clothes" Tuesday. "Sneaker Day" is part of an expanded approach to the five-day series of seminars and how-to sessions befitting the annual "congress" element of Sessions, this year focusing on physical activity and fitness.

"Every discipline from discovery science to hardcore exercise science up to public policy will be covered in the Global Congress,"said Harrington, who will be sporting heart-disease-awareness-red running shoes. "We're going to have public figures talking about the impact of physical activity from a public policy standpoint. And we're going to be doing some really fun, visible things within the convention center to bring more attention to physical activity. I think it's going to be fantastic."



One of those fun things is a Walking Path staked by decals on the floor throughout the convention center – along with a Walking Challenge. Attendees are encouraged to register through **my.americanheart.org** or at the Walking Challenge booth. The first 2,000 to sign up will receive a bluetooth-enabled tracking device that will count their steps; it pairs with an iPhone/iPad app that will tally a leaderboard shown on monitors throughout the convention center. The top 20 individual walkers will be recognized Wednesday morning, as will the top five Councils. A 1-mile Fun Walk/5k Fun Run is back for the 21st straight year, as well, held Tuesday morning.

Harrington noted the work of program chairs Ross Arena, PhD, PT, FAHA, and Jean-Pierre Després, PhD, FAHA, in pulling together the meeting agenda. It will include keynote presentations by former U.S. Olympic swimmer Gary Hall Jr. and Kenneth H. Cooper, MD, the "Father of Aerobics."

Early-career emphasis

Traditionally, Saturdays have been devoted to early-career investigators. That is still the case – and then some.

Many Saturday sessions will be moderated both by senior leaders and early-career investigators in hopes of providing a deeper perspective around topics like job searches, writing articles, getting grant funding, mentoring – topics that are important regardless of science specialty. Harrington himself is moderating a session along with a junior faculty member from Stanford.

"Usually, the early-career investigators are sitting in the audience listening to senior members talk," Harrington said. "Now we're bringing them in to actually plan the discussions and to help moderate so we can stay on topic to what's important to their generation. You'll see a lot of our abstract sessions will have a junior and a senior leading it. The junior person can really learn from a senior colleague about how to moderate, and us seniors can learn from the juniors about what areas interest them the most."

That focus continues through the Early Career Engagement Lounge and Professor Rounds. The lounge, outside the poster hall, is where early-career investigators can network with peers and senior investigators can reach out for mentoring sessions and other conversations. AHA staff will be on hand to discuss volunteering, grants and leadership opportunities.

As the name implies, Professor Rounds are similar to doctors making rounds at the

continued on next page

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hospital: Professors will visit each poster, most of which are done by early-career attendees.

"I've jokingly called it 'No Poster Left Behind' because the goal is for every single poster to be visited by a professor who will engage that presenter," Harrington said.

Also noteworthy

Harrington noted several more sessions that address hot topics, including one on cardio-oncology and another on data sharing and open data.

Whether to share data in a very open-source manner is another growing, fascinating subject.

"We'll hear from different stakeholders: why funders think it's important, and what investigators think are the challenges," he said. "We have an AHA volunteer – a layperson – who is going to talk about the public perception, what it means to patients. Even if I'm not helping with this session, I will absolutely be there as an attendee."

Late-Breaking Clinical Trials are always headliners, and Harrington said there was a record crop of exactly 100 submissions. Among the 20 that will be featured are CORAL, which studied renal stenting for treatment of hypertension, and ENGAGE, which looked at a novel anticoagulant for atrial fibrillation. Other interesting studies include a randomized trial investigating optimal temperature for hypothermia in cardiac arrest patients, and one on the effectiveness of teaching cardiovascular health to preschool children.

"It's just a fantastic group of trials," he said.

There also will be 19 Clinical Science: Special Reports spread over four sessions, with one devoted to regenerative science.

Basic science attendees will want to block time to attend a reception Monday night that will spotlight the Top 30 basic science abstracts as well as 20 late-breaking basic science abstracts.

And back for another year, with an updated format are the "Case Theaters: Learning at the Movies."

Considering the vast options, an attendee could be overwhelmed. So Harrington recommends planning ahead.

The AHA makes it easy to narrow the agenda to your interests through filtering tools available on **scientificsessions.org** and the app, which has been updated with an activity feed that helps connect attendees.

"With 26 tracks, we've tried to make the meeting a little more accessible based on what your interest is," said Harrington, who is giving a talk Saturday about how to navigate the meeting. "We have search tools – especially on the app – to help you search a lot of different ways: by topic, track, speakers.

"My advice is to take some time with the program and use the online tools to personalize the meeting based on your interests. You can then download a calendar based on that."

Scientific Sessions began in 1925 – the year after the American Heart Association was founded – and has run continuously ever since, save for a hiatus during World War II. This is the eighth time Sessions has been in Dallas since 1978, but the first since 2005.

The convention center has been remodeled and the new Omni Hotel is connected. The ease of access should make Sessions' return to the American Heart Association's hometown more comfortable.

"We want people to walk around and meet people," Harrington said. "We're trying to create the spirit of community, where people can not only learn about their type of science but also find colleagues and work with them."

Relationships Harrington built and/or nurtured through Sessions are instrumental in this colossal undertaking being such a success. This includes the last two years he spent as CSSP Vice Chair under current AHA President-elect Elliott Antman, MD, FAHA, and the efforts of his own Vice Chair, Kenneth D. Bloch, MD, FAHA. Harrington said the support of Jessup and the entire AHA staff also was invaluable.

"It's a huge amount of work, but sort of a labor of love," he said.

While much of the information presented will be available online, that is only one element of the Sessions experience. It's also about networking, socializing, hallway conversations, exchanging business cards – all the benefits of being somewhere in person.

"What you can't get off the Web is that interaction where you bump into a colleague and say, `I just saw this. Can I ask you about it?'" Harrington said. "That's the essence of science, those serendipitous conversations. You've got to interact to have those. You've got to shake hands."

His career wouldn't be the same without it.

"The bulk of my research over the last two decades has been in collaboration with colleagues around the globe, and Sessions has been invaluable for the opportunities to meet regularly with these colleagues – to share ideas, what we're doing and to continue building our friendship and working together." ▼

Training students in CPR saves lives

The American Heart Association is working to train a new generation of lifesavers by encouraging states to require CPR training as a requirement for high school graduation. These advocacy efforts already have yielded laws in 12 states, which will produce more than 822,000 trainees each year.

"Lives are at stake," said Michael R. Sayre, MD, professor of emergency medicine at the University of Washington and a past chair of the AHA's Emergency Cardiovascular Care committee.

The AHA has recommended CPR training for students and teachers be part of standard preparation for responding to medical emergencies on school campuses since 2004. Advocacy efforts stepped up in 2012 with the launch of **BeCPRSmart.org**.

Laws or standards that encouraged inclusion of CPR curriculum content in school programming were in place for 36 states as of the 2009-2010 school year. But the AHA wants that training to be more consistent and comprehensive, including hands-on practice.

The 12 states that have passed legislation are Alabama, Arkansas, Iowa, Georgia, Minnesota, North Carolina, Rhode Island, Texas, Tennessee, Virginia, Vermont and Washington.


Michael R. Sayre, MD

Cardiac arrest is a leading cause of death in the United States, with emergency medical services teams called to nearly 360,000 cases each year outside of a hospital setting.

Studies have shown that the rapid implementation of CPR or use of an automated external defibrillator by bystanders before EMS teams arrive plays a critical role in patient survival.

People who suffer cardiac arrest outside of a hospital have at least twice the chance of surviving if a bystander starts CPR, Sayre said. The problem is that bystander CPR is performed in less than half of those cases.

This is where training teens can help.

As kids graduate and go their separate ways, there's a new crop of trainees – potential lifesavers – taking their place each year. Sayre also believes that such education can make it "normal" to know CPR, removing a possible barrier to taking action when needed.

"Think about all the things you learned in high school that you still remember years later," he said. "That doesn't mean everyone will know how to do a great job, but at least it can change perceptions that CPR is hard or scary and people will be more likely to do it."

Sayre said providing training in schools also could help dispel any misconceptions about CPR, such as the fear that you could hurt the victim.

"We want kids to understand that many of those fears are unfounded," he said. "I always tell people, CPR won't make things worse."

The AHA recommends that CPR training in schools introduce and reinforce the importance of how to recognize the signs of cardiac arrest, calling 9-1-1 and providing high quality chest compressions with minimal interruptions. The recommendations call for training that includes hands-on skill practice, and an awareness of the purpose of an AED.

Several studies have shown that trainees, including children, can achieve acceptable levels of CPR proficiency in 30 minutes or less.

Sayre said watching his own kids undergo CPR training in high school underscored the message for him about how empowering it can be.

"They felt like they could really make a difference," he said.

AHA's advocacy effort for CPR training targets state legislatures, but Sayre noted that individuals can make a big difference by simply lobbying their local school boards to include the training and volunteer to help get a training program started.

"Even if it's not a state requirement, you can make a difference," he said. ▼

SATURDAY
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Nitrostat® (Nitroglycerin Sublingual Tablets, USP)
Brief Summary of Prescribing Information

INDICATIONS AND USAGE

Nitroglycerin is indicated for the acute relief of an attack or acute prophylaxis of angina pectoris due to coronary artery disease.

CONTRAINDICATIONS

Allergic reactions to organic nitrates are extremely rare, but they do occur. Nitroglycerin is contraindicated in patients who are allergic to it.

Sublingual nitroglycerin therapy is contraindicated in patients with early myocardial infarction, severe anemia, increased intracranial pressure, and those with a known hypersensitivity to nitroglycerin.

Administration of NITROSTAT is contraindicated in patients who are using a phosphodiesterase-5 (PDE-5) inhibitor (e.g., sildenafil citrate, tadalafil, vardenafil hydrochloride) since these compounds have been shown to potentiate the hypotensive effects of organic nitrates.

WARNINGS

The benefits of sublingual nitroglycerin in patients with acute myocardial infarction or congestive heart failure have not been established. If one elects to use nitroglycerin in these conditions, careful clinical or hemodynamic monitoring must be used because of the possibility of hypotension and tachycardia.

PRECAUTIONS

General: Only the smallest dose required for effective relief of the acute anginal attack should be used. Excessive use may lead to the development of tolerance. NITROSTAT tablets are intended for sublingual or buccal administration and should not be swallowed.

Severe hypotension, particularly with upright posture, may occur with small doses of nitroglycerin. This drug should therefore be used with caution in patients who may be volume-depleted or who, for whatever reason, are already hypotensive. Hypotension induced by nitroglycerin may be accompanied by paradoxical bradycardia and increased angina pectoris.

Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

As tolerance to other forms of nitroglycerin develops, the effects of sublingual nitroglycerin on exercise tolerance, although still observable, is blunted.

In industrial workers who have had long-term exposure to unknown (presumably high) doses of organic nitrates, tolerance rarely occurs. Chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitrates from these workers, demonstrating the existence of true physical dependence.

Several clinical trials of nitroglycerin patches or infusions in patients with angina pectoris have evaluated regimens that incorporated a 10- to 12-hour nitrate free interval. In some of these trials, an increase in the frequency of anginal attacks during the nitrate free interval was observed in a small number of patients. In one trial, patients had decreased exercise tolerance at the end of the nitrate interval. Hemodynamic rebound has been observed only rarely; on the other hand, few studies were so designed that rebound, if it had occurred, would have been detected.

Nitrate tolerance as a result of sublingual nitroglycerin administration is probably possible, but only in patients who maintain high continuous nitrate levels for more than 10 or 12 hours daily. Such use of sublingual nitroglycerin would entail administration of scores of tablets daily and is not recommended.

The drug should be discontinued if blurring of vision or drying of the mouth occurs. Excessive dosage of nitroglycerin may produce severe headaches.

Information for Patients: NITROSTAT is a sublingual tablet and should not be chewed, crushed, or swallowed.

If possible, patients should sit down when taking NITROSTAT tablets and should use caution when returning to a standing position. This eliminates the possibility of falling due to lightheadedness or dizziness.

One tablet should be dissolved under the tongue or in the buccal pouch at the first sign of an acute anginal attack. The dose may be repeated approximately every 5 minutes until relief is obtained.

If chest pain persists after a total of 3 tablets in a 15-minute period, or if the pain is different than is typically experienced, prompt medical attention is recommended.

NITROSTAT may be used prophylactically 5 to 10 minutes prior to engaging in activities that might precipitate an acute attack.

Nitroglycerin may produce a burning or tingling sensation when administered sublingually; however, the ability to produce a burning or tingling sensation should not be considered a reliable method for determining the potency of the tablets.

Headaches can sometimes accompany treatment with nitroglycerin. In patients who get these headaches, the headaches may be a marker of the activity of the drug.

Treatment with nitroglycerin may be associated with lightheadedness upon standing, especially just after rising from a recumbent or seated position. This effect may be more frequent in patients who have also consumed alcohol.

Nitroglycerin should be kept in the original glass container and must be tightly capped after each use to prevent loss of tablet potency.

Drug Interactions: Patients receiving antihypertensive drugs, beta-adrenergic blockers, or phenothiazines and nitrates should be observed for possible additive hypotensive effects. Marked orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used concomitantly.

Concomitant use of nitrates and alcohol may cause hypotension.

The vasodilatory and hemodynamic effects of nitroglycerin may be enhanced by concomitant administration of aspirin.

Intravenous administration of nitroglycerin decreases the thrombolytic effect of alteplase. Therefore, caution should be observed in patients receiving sublingual nitroglycerin during alteplase therapy.

Intravenous nitroglycerin reduces the anticoagulant effect of heparin and activated partial thromboplastin times (APTT) should be monitored in patients receiving heparin and intravenous nitroglycerin. It is not known if this effect occurs following single sublingual nitroglycerin doses.

Tricyclic antidepressants (amitriptyline, desipramine, doxepin, others) and anticholinergic drugs may cause dry mouth and diminished salivary secretions. This may make dissolution of sublingual nitroglycerin difficult. Increasing salivation with chewing gum or artificial saliva products may prove useful in aiding dissolution of sublingual nitroglycerin.

Oral administration of nitroglycerin markedly decreases the first-pass metabolism of dihydroergotamine and subsequently increases its oral bioavailability. Ergotamine is known to precipitate angina pectoris. Therefore, patients receiving sublingual nitroglycerin should avoid ergotamine and related drugs or be monitored for symptoms of ergotism if this is not possible.

Administration of nitroglycerin is contraindicated in patients who are using PDE-5 inhibitors (e.g., sildenafil citrate, tadalafil, vardenafil hydrochloride). These compounds have been shown to potentiate the hypotensive effects of organic nitrates.

A decrease in therapeutic effect of sublingual nitroglycerin may result from use of long-acting nitrates.

Drug/Laboratory Test Interactions: Nitrates may interfere with the Zlatkis-Zak color reaction, causing a false report of decreased serum cholesterol.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Animal carcinogenesis studies with sublingually administered nitroglycerin have not been performed.

Rats receiving up to 434 mg/kg/day of dietary nitroglycerin for 2 years developed dose-related fibrotic and neoplastic changes in liver, including carcinomas, and interstitial cell tumors in testes. At high dose, the incidences of hepatocellular carcinomas in males was 48% and in females was 33%, compared to 0% in untreated controls. Incidences of testicular tumors were 52% vs. 8% in controls. Lifetime dietary administration of up to 1058 mg/kg/day of nitroglycerin was not tumorigenic in mice.

Nitroglycerin was weakly mutagenic in Ames tests performed in 2 different laboratories. Nevertheless, there was no evidence of mutagenicity in an *in vivo* dominant lethal assay with male rats treated with doses up to about 363 mg/kg/day, PO, or in *ex vivo* cytogenetic tests in rat and dog tissues.

In a 3-generation reproduction study, rats received dietary nitroglycerin at doses up to about 434 mg/kg/day for 6 months prior to mating of the F_0 generation, with treatment continuing through successive F_1 and F_2 generations. The high dose was associated with decreased feed intake and body weight gain in both sexes at all matings. No specific effect on the fertility of the F_0 generation was seen. Infertility noted in subsequent generations, however, was attributed to increased interstitial cell tissue and aspermatogenesis in the high-dose males. In this 3-generation study, there was no clear evidence of teratogenicity.

Pregnancy Category C: Animal reproduction and teratogenicity studies have not been conducted with nitroglycerin sublingual tablets. Teratology studies in rats and rabbits, however, were conducted with topically applied nitroglycerin ointment at doses up to 80 mg/kg/day and 240 mg/kg/day, respectively. No toxic effects on dams or fetuses were seen at any dose tested.

There are no adequate and well-controlled studies in pregnant women. Nitroglycerin should be given to a pregnant woman only if clearly needed.

Nursing Mothers: It is not known whether nitroglycerin is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when nitroglycerin is administered to a nursing woman.

Pediatric Use: The safety and effectiveness of nitroglycerin in pediatric patients have not been established.

Geriatric Use: Clinical studies of NITROSTAT did not include sufficient numbers of subjects aged 65 and over to determine whether they respond differently from younger subjects. Other reported clinical experience has not identified differences in responses between the elderly and younger patients. In general, dose selection for an elderly patient should be cautious, usually starting at the low end of the dosing range, reflecting the greater frequency of decreased hepatic, renal, or cardiac function, and of concomitant disease or other drug therapy.

ADVERSE REACTIONS

Headache that may be severe and persistent may occur immediately after use. Vertigo, dizziness, weakness, palpitation, and other manifestations of postural hypotension may develop occasionally, particularly in erect, immobile patients. Marked sensitivity to the hypotensive effects of nitrates (manifested by nausea, vomiting, weakness, diaphoresis, pallor, and collapse) may occur at therapeutic doses. Syncope due to nitrate vasodilatation has been reported. Flushing, drug rash, and exfoliative dermatitis have been reported in patients receiving nitrate therapy.

OVERDOSAGE

Hemodynamic Effects: The effects of nitroglycerin overdose are generally the results of nitroglycerin's capacity to induce vasodilatation, venous pooling, reduced cardiac output, and hypotension. These hemodynamic changes may have protean manifestations, including increased intracranial pressure, with any or all of persistent throbbing headache, confusion, and moderate fever; vertigo; palpitations; tachycardia; visual disturbances; nausea and vomiting (possibly with colic and even bloody diarrhea); syncope (especially in the upright posture); dyspnea, later followed by reduced ventilatory effort; diaphoresis, with the skin either flushed or cold and clammy; heart block and bradycardia; paralysis; coma; seizures; and death.

No specific antagonist to the vasodilator effects of nitroglycerin is known, and no intervention has been subject to controlled study as a therapy of nitroglycerin overdose. Because the hypotension associated with nitroglycerin overdose is the result of venodilatation and arterial hypovolemia, prudent therapy in this situation should be directed toward increase in central fluid volume. Passive elevation of the patient's legs may be sufficient, but intravenous infusion of normal saline or similar fluid may also be necessary.

The use of epinephrine or other arterial vasoconstrictors in this setting is likely to do more harm than good.

In patients with renal disease or congestive heart failure, therapy resulting in central volume expansion is not without hazard. Treatment of nitroglycerin overdose in these patients may be subtle and difficult, and invasive monitoring may be required.

Methemoglobinemia: Methemoglobinemia has been rarely reported in association with organic nitrates. The diagnosis should be suspected in patients who exhibit signs of impaired oxygen delivery despite adequate cardiac output and adequate arterial PO_2. Classically, methemoglobinemic blood is described as chocolate brown, without color change on exposure to air.

If methemoglobinemia is present, intravenous administration of methylene blue, 1 to 2 mg/kg of body weight, may be required.

Based on USPI, May 2011
NST601301-01

The only currently available FDA-approved sublingual nitroglycerin tablet for the acute relief of angina[1,2*]

This is not the actual bottle.

NITROSTAT (Nitroglycerin Sublingual Tablets, USP) is indicated for the acute relief of an attack or acute prophylaxis of angina pectoris due to coronary artery disease[3]

- Onset of vasodilatory effect occurs approximately 1 to 3 minutes after sublingual administration and reaches a maximum by 5 minutes[3]
- May be used prophylactically 5 to 10 minutes prior to engaging in activities that might precipitate an acute attack[3]

*As of September 2013. Based on the FDA-approved Drug Products list from the U.S. Food & Drug Administration Web site.

NITROSTAT tablets are available in doses of 0.3 mg, 0.4 mg, or 0.6 mg.

Important Safety Information

- Sublingual nitroglycerin therapy is contraindicated in patients with early myocardial infarction, severe anemia, increased intracranial pressure, and those with a known hypersensitivity to organic nitrates including nitroglycerin
- Administration of NITROSTAT is contraindicated in patients who are using a phosphodiesterase-5 (PDE-5) inhibitor (e.g., sildenafil citrate, tadalafil, vardenafil hydrochloride) because these compounds can increase nitroglycerin's hypotensive effects
- The benefits of sublingual nitroglycerin in patients with acute myocardial infarction or congestive heart failure have not been established. If used for these conditions, careful clinical or hemodynamic monitoring must be practiced because of the possibility of hypotension and tachycardia
- Only the smallest dose required for effective relief of the acute anginal attack should be used. Excessive use may lead to the development of tolerance. NITROSTAT tablets are intended for sublingual or buccal administration and should not be swallowed
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- Hypotension induced by nitroglycerin may be accompanied by paradoxical bradycardia and increased angina pectoris
- Nitrate therapy may also aggravate the angina caused by hypertrophic cardiomyopathy
- The drug should be discontinued if blurring of vision or drying of the mouth occurs
- Concomitant use with antihypertensive drugs, beta-adrenergic blockers, phenothiazines, calcium channel blockers and alcohol may cause or aggravate hypotension
- If chest pain persists after a total of 3 tablets in a 15-minute period, or if the pain is different than is typically experienced, prompt medical attention is recommended
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Please see brief summary of full Prescribing Information for NITROSTAT on previous page.

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NITROSTAT
(NITROGLYCERIN SUBLINGUAL TABLETS, USP)
A TRADITION OF ANGINA RELIEF

Printed in USA/October 2013

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