



The Society for Cardiovascular Angiography and Interventions

SCAI President's Page

Women in Interventions: A WIN for Cardiovascular Medicine

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As the field of Interventional Cardiology continues to make great strides, delivering continually improved and innovative patient care, the growth and development of research focused on underrepresented populations is critical. Specifically, gender-specific research, treatment, and professional opportunities in Interventional Cardiology remain a major concern. Statistically, women suffer worse outcomes than men when undergoing cardiovascular procedures, and women are exceedingly underrepresented in clinical trials. Within the profession, women also remain underrepresented. As the overall workforce of Interventional Cardiologists continues to grow at a rate unable to meet the demand for care, it is time for an integrated effort to address the problem.

To address these and other issues, the Society for Cardiovascular Angiography and Interventions (SCAI) launched **Women in Innovations (WIN)**, an international grassroots approach to addressing gender disparities in cardiovascular care and professionalism. Through the development of research, educational forums, and professional development opportunities, WIN serves as an international network linking physicians, regulatory bodies, and other professional and patient groups with similar interests.

The most recent statistics published by the American Heart Association's Statistics Committee and Stroke Statistics Subcommittee(1) indicate that while women have a lower prevalence of coronary heart disease and myocardial infarction (MI) than men, they have higher mortality rates for both. In the case of myocardial infarction (MI), the current statistics are a cause for alarm: the mortality rate for men with MI is 1.66%, while for women its 2.46%. Mortality rates for women with stroke are similarly high (2.69%), especially for younger women. Women are reported as having higher rates of complications than men and, despite similar procedural success rates, higher in-hospital mortality. It is challenging to identify the underlying causes of such

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DOI 10.1002/ccd.22454

Published online 8 March 2010 in Wiley InterScience (www.interscience.wiley.com).

variances because women account for no more than 30% of patients enrolled in the majority of clinical trials. We must conclude that women are being treated on evidence extrapolated from studies mainly based on men's outcomes.

On the professional side, the Lewin Group, Inc., and the Association of American Medical Colleges recently reported that less than 10% of Interventional Cardiologists are women (2). While the number of Interventional Cardiologists is expected to increase at an annual rate similar to the demand for care, there is currently a large gap between supply and demand that is not projected to close. In fact, when compared to general cardiology, cardiac electrophysiology, and pediatric cardiology, Interventional Cardiology presents the largest gap between supply and demand.

Goals of WIN

SCAI's Women in Innovations (WIN) initiative is a three-pronged approach to reducing gender disparities in cardiovascular care and the composition of the Interventional Cardiology workforce. Through educational initiatives, promotion of research opportunities, and professional development activities, WIN aims to change the scientific approach to cardiovascular care for women on a global level.

Education: WIN will identify and facilitate opportunities to promote, participate in, and organize educational forums around the world addressing evidence-based information on women with cardiovascular disease.

Research: WIN's research agenda is extensive, including plans (1) to develop and facilitate national and international studies focused on biological and genetic markers to evaluate the differences in cardiovascular disease between women and men; (2) to partner with other organizations to ensure that clinical trials include pre-specified endpoints for women and defined female enrollment; and (3) to create research awards aimed at advancing the science around gender disparities in cardiovascular care and outcomes.

Professional Development: WIN is developing mentorship and networking opportunities for female Interventional Cardiologists, creating pathways to assist women in launching new research and innovations and facilitating round-table discussions on advancing the science around gender disparities in cardiovascular disease. WIN will also serve as a home for female Interventional Cardiologists, and aims to address the workforce shortage through the recruitment and retention of women into the field.

Integral to the WIN strategy is engaging the participation of a global network of physicians and partner

perspectives. The WIN initiative was officially launched at the Society's 2009 Annual Scientific Sessions and already it has a growing membership of women and men worldwide. The WIN Advisory Committee includes physicians from Italy, United Kingdom, United States, Japan, Spain, Australia, Canada and Argentina. These "global ambassadors" demonstrate the grassroots nature of the WIN initiative.

Meanwhile, WIN is actively engaged in developing partnerships with organizations such as the American Heart Association, WomenHeart, the European Association of Percutaneous Cardiovascular Interventions (EAPCI) and the Food and Drug Administration, among others. WIN's strategic partnerships will be key to its growth, credibility, longevity and success.

Next Steps

WIN is actively recruiting new members from around the world while simultaneously developing new relationships and strengthening existing partnerships with groups that share its goals. Soon, WIN will unveil a mentorship program and begin offering educational programming both in the US and abroad. Dr. Roxana Mehran, M.D., FSCAI, who chairs WIN along with SCAI Past President Bonnie Weiner, M.D., FSCAI, and Alaide Chieffo, M.D., FSCAI, joined me for a discussion of WIN's overall priorities, immediate objectives and the group's consensus statement on gender-based issues in Interventional Cardiology.

Dr. Bailey: Roxana, the consensus statement, and the overall goals of the WIN group, are important and timely, given discussions about comparative effectiveness and the very appropriate focus on outcomes. The WIN consensus statement will be the first specifically on women and cardiovascular disease in a number of years. Will you speak briefly about what inspired WIN and what your key goals are?

Dr. Mehran: Steve, on behalf of everyone involved in the Women in Interventions group, I want to thank you for supporting the WIN group and its goals during your term as president of SCAI. We view this as a very important undertaking, one that can have a tremendous impact on female patients' outcomes. That's our true priority – to improve the outcomes of the female patient with cardiovascular disease.

As you know, this is an area where there is a large knowledge gap, and by that I mean a gap in knowing what to do and how to address gender-related issues, both in the Interventional Cardiology workplace and for our female patients. To have the Society's support is a breath of fresh air.

Dr. Bailey: Women are significantly less likely to be revascularized and to be given statins and other medications on discharge. Does WIN have an understanding of why that might be or what to do about it?

Dr. Mehran: Unfortunately, there is no real answer to this very important question yet. One way we hope to arrive at a better understanding of it is conducting clinical trials that will help us get at why access to care may be different for women versus men. Is it physician related, or is it related to the female patient as a whole? We want to understand that better.

We want to help future clinical trials not to compare women's outcomes to men's but to actually look at their presentation and medications and what would best fit the female patient population.

Dr. Bailey: The consensus statement sets an ambitious agenda for research on women's outcomes. What is WIN's plan in terms of priorities and focus?

Dr. Mehran: Our priority, to put it succinctly, is to understand if there is a significant therapeutic strategy that would best favor this population so they would have the most improved outcomes. That's really what we're looking for. That's the focus.

We're going to get there through the efforts of physician-investigators and clinician-scientists who will put this on the front burner, rather than the back burner. Continued research of retrospective review of how women did in a clinical trial is no longer acceptable for anyone. One way for us to initiate this path is to make sure that there are enough female patients enrolled in clinical trials. One of our biggest flaws in cardiovascular research is that the number of women enrolled is 25–30% at most. Some of the old coronary artery bypass graft surgery studies are less than 10% women. Here are therapies that are being applied to the population at large when we actually haven't studied their specific effects on the female patient.

I think it's going to be very important to look at African American women and diabetic women, for example. These patients do very poorly on many of the standard of care therapies, and we need to understand why. Are there biomarkers that separate them from the broader population?

The WIN group is also planning to bring forward female interventional cardiologists to focus on these issues. Let me be clear – this is not just an issue for women to address. It should be an issue for all cardiologists, but we do believe that female interventional cardiologists will make an extra effort to make sure

female patients are enrolled in clinical trials. That's so important, and women interventionalists can be a voice for female patients in our arena.

One of the other things the WIN group is working to do is ensure the safety of the female healthcare providers in the cath lab and other sites with the potential for radiation exposure. We will be working with the American College of Cardiology to develop recommendations for radiation exposure and how women healthcare providers, particularly those of child-bearing age, can protect themselves and a fetus in this environment.

Dr. Bailey: So, WIN has developed a multi-pronged approach to women in cardiology. Education is another focus. I'm curious, Roxana, what's your instinct on the best approach to education: do we target the patient or the provider?

Dr. Mehran: I really think it's both. My gut feeling is there is tremendous lack of education and, if we fill that gap, then the research will come. These are all extremely inter-related. We need to educate the provider to be focusing on these issues and the provider can educate the patient. The patient needs to be educated as well so that they do follow-up and compliance. If they know what's going on, they will be better patients and take better care of themselves. We have to give attention to both providers and patient.

Dr. Bailey: Thank you, Roxana. We look forward to participating in WIN activities. SCAI is proud to be part of this incredibly important and focused effort.

WIN has also launched a website, www.scai-win.org, which features up-to-date information on events, opportunities and information as it becomes available. Furthermore, WIN is eager to share resources, knowledge and expertise with organizations that have similar priorities and focus. For more information on how you or your organization can participate, please contact Rebecca Teichgraber at rebeccat@scai.org.

REFERENCES

1. Rosamond W, Flegal K, Furie K, et al. for the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Heart Disease and Stroke Statistics—2008 Update: A Report From the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. *Circulation* 2008;117:e25–e146; originally published online Dec 17, 2007.
2. Lewin Group, Inc, and the Association of American Medical Colleges. Cardiovascular Workforce Assessment, Final Report. March 2, 2009.