

# Highlights From the 2017 Cardiovascular and Stroke Nursing Clinical Symposium

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The Cardiovascular and Stroke Nursing Clinical Symposium had a successful program at the American Heart Association's (AHA's) 2017 Scientific Sessions. Since its inception, the goal of the symposium is to disseminate knowledge on cardiovascular and stroke care as well as provide clinical nurses and advance practice nurses with evidence-based advancements in cardiac and stroke nursing science. The 1.5-day event began with opening remarks from the current chair of the Council on Cardiovascular and Stroke Nursing, Dr Nancy Artinian. She provided attendees with an overview of the opportunities available for nurses at the AHA and shared the many available resources the AHA has to offer.

## Precision Medicine and Pharmacogenomics

Advancements in precision medicine have improved the treatment of cardiovascular disease as well as increased the development of tools for disease prevention. Two sessions focused on how genomics shape an individual's health and healthcare needs. Dr Kathleen Hickey gave a keynote address highlighting precision medicine, emphasizing the need for personalized health and a multidisciplinary approach to one's medical care. Personalized health care would not be complete without discussing pharmacogenomics, which included the effects of genetic makeup on medication dosing and a review of available resources. With the increasing availability of genetic testing services, patients are becoming more

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empowered to engage in their health care. Precision medicine is a growing field, with nurses tasked to educate patients on genetic testing and answer questions related to this field.

## Updates in Interventional Cardiology and Structural Heart Disease

The symposium included one panel discussion on interventional cardiology and one on structural heart disease. The association between patent foramen ovale in patients with cryptogenic stroke has been debated for years. Three recently published multicenter studies revealed that patent foramen ovale closure in conjunction with antiplatelet therapy in this population decreases the risk of cryptogenic strokes compared with patients treated with antiplatelet therapy alone.<sup>1-3</sup> The AMPLATZER PFO Occluder device, approved by the Food and Drug Administration in 2016, will likely increase the number of patent foramen ovale closures performed in the coming years. Coronary brachytherapy, used in the past as a treatment for in-stent restenosis of bare metal stents, has seen a resurgence for the treatment of resistant in-stent restenosis of drug-eluting stents. The structural heart disease panel included discussions about updates in transcatheter approaches for aortic stenosis and mitral regurgitation. There are now methods available to assess a patient's complex anatomy to enhance effective treatment. One such method is the use of 3-dimensional printing, which can provide interventional cardiologists with a model of a patient's heart for use in procedural planning and preprocedure training to improve patient outcomes.

## ECG Monitoring

Continuous ECG monitoring is a common practice in hospitals, but alarm fatigue continues to be an ongoing problem. Alarm fatigue desensitizes healthcare providers to alarms, thus affecting patient outcomes. Dr Marjorie Funk presented the findings from the PULSE (Practical Use of the Latest Standards for Electrocardiography) trial. The PULSE trial, a 6-

year multisite randomized controlled trial, examined the effects of implementing the 2004 AHA standards for ECG monitoring on nurses' knowledge, quality of care, and patient outcomes.<sup>4</sup> The study revealed that improving nurses' knowledge about appropriate ECG monitoring leads to better patient outcomes. Dr Funk reminded the audience that an Update to the Practice Standards for Electrocardiographic Monitoring in Hospital Settings was published recently in *Circulation*.<sup>5</sup>

## Pharmacology

Each year, new drugs are approved by the Food and Drug Administration. Healthcare providers must be knowledgeable about new drugs, but it is just as important for providers to understand the cardiac adverse effects of recreational drugs. The pharmacology lecture provided information about the effects of recreational drugs, such as marijuana, cocaine, and methamphetamine, on the cardiovascular system.

## Advanced Heart Failure

Caring for patients with left ventricular assist devices (LVADs) and patients who have received heart transplants can be intimidating for those unfamiliar with this patient population. The number of LVADs in the population continues to grow. The number of patients worldwide requiring a heart transplant has grown exponentially, with a decrease in the number of donor hearts and an increase in the number of LVAD implants as destination therapy.<sup>6</sup> As Cynthia Bither stated, the best scenario would be for patients with LVADs to present to their implant center during emergencies, but this does not always occur. Nurses in communities where these patients seek treatment need to arm themselves with the knowledge necessary to care for them. For example, to answer the question if chest compressions should be performed on an unconscious pulseless patient with an LVAD, the AHA published a scientific statement for cardiopulmonary resuscitation in patients with LVADs, which states that if there are no signs of life in a patient with an LVAD, cardiopulmonary resuscitation is recommended.<sup>7</sup>

## Management of the Patient With Stroke

The stroke topic this year focused on managing the bleeding patient with stroke. Mary Kay Bader provided a review of the use of anticoagulant and antiplatelet therapies. The use of thromboelastography in clinical practice was also highlighted. Although not commonly used yet, the benefits of

thromboelastography in the treatment of the patients with stroke may help guide appropriate therapy if bleeding occurs.

## Cardiac Rehabilitation

The symposium ended with a session on cardiac rehabilitation. Because of ongoing advancements in medical science, mortality from cardiovascular diseases is decreasing. The need for rehabilitation to prevent further morbidity after a cardiac event is paramount. Unfortunately, cardiac rehabilitation centers continue to be underused. Dr Lee Ann Siegmund emphasized that little research has focused on minorities, women, and older adults in cardiac rehabilitation. Studies are needed to determine the factors that influence participation in cardiac rehabilitation and the outcomes of participation of these population groups in cardiac rehabilitation. Providing nurses with the knowledge to identify those who will benefit from rehabilitation and engaging patients in this important discussion are key to better patient outcomes.

In summary, this year's Cardiovascular Nursing Clinical Symposium was successful with the hard work of the Symposium's Programming Committee (Rose Shaffer, Chair; Bobbi Leeper, Immediate Past Chair; Anthony McGuire; Barbara Hinch; Kay Fedyszen; Heidi Salisbury). The symposium provides a forum for bedside nurses, advance practice nurses, and nurse scientists to share knowledge and exchange ideas, which will lead to improvements in clinical nursing practice.

## Disclosures

None.

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