New guidelines for cardiovascular genetic testing

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An international panel of experts from The Heart Rhythm Society and the European Heart Rhythm Association issued new guideline recommendations for all health care professionals about cardiovascular genetic testing at the Heart Rhythm Society's 32nd Annual Scientific Sessions.

Silvia G. Priori, MD, PhD, a leader in the field of inherited cardiovascular diseases and director of the Cardiovascular Genetics Program at NYU Langone Medical Center, was co-lead author of the HRS/EHRA Expert Consensus Statement on the State of Genetic Testing for the Channelopathies and Cardiomyopathies. The complete guidelines will be published in the August 2011 issue of the *HeartRhythm Journal* and *Europace*.

The new overarching recommendations about cardiac genetic testing include:

- Genetic counseling is recommended for all patients and relatives with the familial heart diseases detailed in the document and should include discussion of the risks, benefits and options available for clinical testing and/or genetic testing.
- Treatment decisions should not rely solely on his/her genetic test result but should be based on an individuals' comprehensive clinical evaluation.
- It can be useful for pre-genetic test counseling, genetic testing, and the interpretation of genetic test results to be performed in centers experienced in the genetic evaluation and family-based management of the heritable arrhythmia syndromes and cardiomyopathies described in the document.

The goal of the authors was to evaluate the role of genetic testing and ensure that all physicians have the latest knowledge about the potentially life-saving screening for patients with cardiac conditions that may predispose them to sudden cardiac death and other genetic heart diseases.

The recommendations focus on genetic testing for 13 inherited cardiac conditions including: Long QT Syndrome, Catecholaminergic Polymorphic Ventricular Tachycardia, Brugada Syndrome, Progressive Cardiac Conduction Disease, Short QT Syndrome, Atrial Fibrillation, Hypertrophic Cardiomyopathy, Arrhythmogenic Cardiomyopathy/Arrhythmogenic Right Ventricular Cardiomyopathy, Dilated Cardiomyopathy, Left Ventricular Noncompaction and Restrictive Cardiomyopathy. In addition, the statement includes guidance on the use of genetic testing for out-of-hospital cardiac arrest survivors and post-mortem testing in sudden death cases.

"Genetic testing cannot be viewed as a one-size fits all solution, but should be considered for each disease state," said Dr. Priori, who is also director of Molecular Cardiology and Electrophysiology Laboratories at Fondazione Salvatore Maugeri University in Pavia, Italy. "The recommendations outlined in this document can and should be used as guidance on how each potential disease is evaluated with respect to genetic testing, keeping in mind that each patient is different."

Provided by New York University School of Medicine