

Cardiovascular Update

July 2019 | Volume 4, Issue 4

A newsletter from the BayCare Cardiovascular Service Line

Implantable Cardioverter Defibrillator (ICD) Shared Decision-Making Tool

Rodrigo A. Bolaños, MD

The number one cause of death in the United States is cardiovascular disease.¹ Of these deaths, 50 percent are due to sudden cardiac death (SCD) with the majority of these being due to life-threatening ventricular arrhythmias (VA).² The majority of these patients unfortunately have no prior history of heart disease.³ Having said that, great progress has been made over the past several decades in identifying those patients with known heart disease who are at the greatest risk of SCD. Once these patients are identified, the implantable cardioverter defibrillator (ICD) combined with optimal medical therapy plays a central role in protecting many of these patients against sudden cardiac death from VA.

The first ICD was implanted in a human patient in 1980 by Dr. Michael Mirowski and his team at Johns Hopkins Medical Center. Some skepticism surrounded the early ICDs and some physicians even felt they were unethical.⁴ Since that time, the use of the ICD has grown exponentially as its benefit in preventing SCD in a wide range of cardiac patients has been proven. Thousands of patients in both secondary prevention and primary prevention trials have been studied, helping to guide our use of the ICD in varied patient populations at risk for SCD.

In the early 2000s, the published results of several large primary prevention trials such as SCD-HeFT⁵ and MADIT-II⁶ resulted in a marked increase in the use of the ICD with expanded coverage by Centers for Medicare and Medicaid Services (CMS). Last year, CMS updated its National Coverage Determination (NCD) for ICDs for the first time since 2005. A priority of the new NCD is the need for every patient who'll be receiving a primary prevention ICD to be involved in a shared decision encounter with a health care provider utilizing an evidence-based decision tool.

This requirement by CMS is in line with the recommendations from the 2017 AHA/ACC/HRS guideline for management of patients with ventricular arrhythmias and the prevention of sudden cardiac death that states “in patients with ventricular arrhythmia or an increased risk for sudden cardiac death, clinicians should adopt a shared decision-making approach in which treatment decisions are based not only on best available evidence but also on the patient’s health goals, preferences and values.”²⁷

Continued on page 2

Upcoming Conference

Saturday, October 12
8am–3pm

BayCare C.A.S.E. (Cardiovascular, Arrhythmia, Surgery, Endovascular) Symposium

Renaissance Tampa
International Plaza Hotel
Tampa

To register:

BayCareCardioConference.org



Rodrigo A. Bolaños, MD

Medical Director, Electrophysiology
Winter Haven Hospital



The NCD delineates the health care provider as “a physician or qualified non-physician practitioner (meaning physician assistant, nurse practitioner or clinical nurse specialist)?” At BayCare, many of our providers have followed a “shared decision-making approach” while counseling their prospective ICD patients since the inception of the therapy.

It’s important to clarify that this new requirement by CMS is specifically directed at primary prevention patients who, due to their cardiovascular condition, are at increased risk of SCD and thus potential candidates for an ICD. The majority of patients who fall into this group have cardiomyopathies with accompanying heart failure. As health care providers, we need to spend the most time with these patients to ensure that they’re making informed decisions for potential ICD implantation.

In order to standardize and implement this initiative across BayCare, we’ve adopted a shared ICD implantation decision tool developed at The University of Colorado Program for Patient Centered Decisions. This tool focuses on patients with heart failure who are being considered for an ICD. The decision tool guides the patient through a series of questions which facilitates the patient’s understanding of what an ICD is, what it does and doesn’t do, and the potential consequences for each patient that accompany their decision to proceed or not with the implantation of an ICD.

The tool addresses the patient’s most common concerns and questions that often arise during the ICD implantation process, with easy-to-understand diagrams with facts that aid in clarifying the patient’s goals and wishes.

It’s our responsibility as health care providers to continue to ensure that our patients have the necessary information to make informed decisions. With the BayCare-wide adoption and institution of this ICD decision tool, heart failure patients in our community will be able to make better informed decisions that they can feel good about.

References

1. Deaths: Leading Causes for 2017. Heron M. National Vital Statistics Reports. 2019 June; 68 (6): 1-77.
2. 2017 AHA/ACC/HRS guideline for management of patients with ventricular arrhythmias and prevention of sudden cardiac death: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Guidelines and the Heart Rhythm Society. Al-Khahib SM, Stevenson WG, Ackerman MJ, Bryant WJ, Callans DJ, Curtis AB, Deal BJ, Dickfeld T, Fonarow GC, Gillis AM, Granger CB, Hammill SC, Hlatky MA, Joglar JA, Kay GN, Matlock DD, Myerburg RL, Page RL. Heart Rhythm 2018 Oct ; 15 (10):e73-e189.
3. Cardiac and Noncardiac Causes of Apparent Sudden Arrhythmic Deaths. Myerburg RJ. Circulation. 2018 June; 137:2701-2704.
4. Improvements in 25 Years of Implantable Cardioverter Defibrillator Therapy. G.H van Wersenes. Neth Heart J. 2011 Jan;19(1):24-30.
5. Amiodarone or an Implantable Cardioverter-Defibrillator for Congestive Heart Failure. Gust H. Bardy, MD, Kerry L. Lee, PhD, Daniel B. Mark, MD, Jeanne E. Poole, MD, et al., for the Sudden Cardiac Death in Heart Failure Trial (SCD-HeFT) Investigators. N Eng J Med 2005; 352:225-237.
6. Prophylactic Implantation of a Defibrillator in Patients with Myocardial Infarction and Reduced Ejection Fraction. Arthur J. Moss, MD, Wojceich Zareba, MD, PhD, W. Jackson Hall, PhD, Helmut Klein, MD, et al., for the Multicenter Implantation Trial II Investigators. N Eng J Med 2002 March 21: 346 (12): 877-883.
7. Decision Memo for Implantable Cardioverter Defibrillators (CAG-00157R4). Centers for Medicare and Medicaid Services

View the ICD decision aid from the Colorado Program for Patient Centered Decisions.

Past issues of the Cardiovascular Update newsletter are now available online.

View the newsletter archive and previous editions of BayCare’s Cardiovascular and Surgical Outcomes book.

