REDUCING THE BURDEN OF HEART FAILURE HOSPITALIZATIONS

Heart failure is the 4th leading cause of 30-day hospital readmissions and the #1 cause of Medicare patient hospital readmissions.

Cardiac Resynchronization Therapy (CRT) is effective for indicated heart failure patients: reducing mortality and hospitalizations, and improving quality of life.

AdaptivCRT® reduced 30-day hospital readmissions for heart failure by nearly half.

HEART FAILURE AND HOSPITALIZATIONS

Heart failure affects 5.1 million Americans and results in more than 1 million hospitalizations yearly.

On average, heart failure patients are readmitted 1.23 times in year one; repeated hospitalizations are associated with increased mortality.

On average, a heart failure hospitalization costs a hospital $8,184.

Hospitals incurred $227 million in Medicare readmission penalties in FY2014.

REDUCING THE BURDEN AND IMPROVING PATIENT OUTCOMES

CRT reduces heart failure hospitalizations by 52%.

AdaptivCRT preserves normal heart rhythms and adapts to patient needs. For patients with normal AV conduction, AdaptivCRT reduced the risk of heart failure hospitalizations and death by 48%.

† Year after their initial diagnosis or heart failure destabilization.

* 30-day readmissions following a heart failure hospitalization.

† Year after their initial diagnosis or heart failure destabilization.

Ask your electrophysiologist about Medtronic CRT devices with AdaptivCRT.
We need to address heart failure as it becomes more prevalent with aging patients, but we have a responsibility to be good fiscal stewards, as well. The need to help patients feel better and live longer while reducing long-term costs is what motivated Medtronic to pursue a major advance in addressing heart failure with cardiac resynchronization therapy (CRT): the AdaptivCRT algorithm. The AdaptivCRT feature automatically adjusts to a patient’s needs to customize therapy, leading to clinical and economic benefits such as a 47 percent reduction of 30-day hospital readmissions. AdaptivCRT also demonstrated a reduction in heart failure hospitalizations by 21 percent at one year. These benefits make AdaptivCRT a leap forward in heart failure CRT for both the patients and the healthcare system.\(^{1,10,20}\)

References

Brief Statement: CRT IPGs and CRT ICDs
Indications:
Cardiac Resynchronization Therapy (CRT) IPGs are indicated for NYHA Functional Class III and IV patients who remain symptomatic despite stable, optimal heart failure medical therapy and have an LVEF ≤ 35% and a prolonged QRS duration and for NYHA Functional Class I, II, or III patients who have an LVEF ≤ 50%, are on stable, optimal heart failure medical therapy if indicated and have atrioventricular block (AV block) that are expected to require a high percentage of ventricular pacing that cannot be managed with algorithms to minimize right ventricular pacing. Optimization of heart failure medical therapy that is limited due to AV block or the urgent need for pacing should be done post-implant. Rate adaptive pacing is provided for those patients developing a bradycardia indication who might benefit from increased pacing rates concurrent with increases in activity. Dual chamber and atrial tracking modes are indicated for patients who may benefit from maintenance of AV synchrony. Antitachycardia pacing (ATP) is indicated for termination of atrial tachyarrhythmias in patients with one or more of the above pacing indications. CRT ICDs are indicated for ventricular antitachycardia pacing and ventricular defibrillation for automated treatment of life-threatening ventricular arrhythmias and for providing cardiac resynchronization therapy in heart failure patients on stable, optimal heart failure medical therapy if indicated, and meet any of the following classifications: New York Heart Association (NYHA) Functional Class III or IV and who have a left ventricular ejection fraction ≤ 35% and a prolonged QRS duration. Left bundle branch block (LBBB) with a QRS duration ≥ 130 ms, left ventricular ejection fraction ≤ 30%, and NYHA Functional Class II. NYHA Functional Class I, III or IV and who have left ventricular ejection fraction ≤ 50% and atrioventricular block (AV block) who are expected to require a high percentage of ventricular pacing that cannot be managed with algorithms to minimize right ventricular pacing. Optimization of heart failure medical therapy that is limited due to AV block or the urgent need for pacing should be done post-implant. Some CRT ICDs are also indicated for use in patients with atrial tachyarrhythmias, or those patients who are at significant risk for developing atrial tachyarrhythmias. The RV Lead Integrity Alert (LIA) feature is intended primarily for patients who have a Medtronic ICD or CRT-D device and a Sprint Fidelis lead (Models 6949, 6948, 6931, and 6930) based on performance data. The RV LIA feature may not perform as well as a St. Jude Medical Riata®/Durata® lead or a Boston Scientific Endotak lead as it does when used with a Medtronic Sprint Fidelis lead. This is because different lead designs may have different failure signatures and conditions that may or may not be detected early by the RV LIA feature. Contraindications: CRT IPGs are contraindicated for concomitant implant with another bradycardia device and concomitant implant with an implantable cardioverter defibrillator: There are no known contraindications for the use of pacing as a therapeutic modality to control heart rate. The patient’s age and medical condition, however, may dictate the particular pacing system, mode of operation, and implant procedure used by the physician. Rate-responsive modes may be contraindicated in those patients who cannot tolerate pacing rates above the programmed Lower Rate. Dual chamber sequential pacing is contraindicated in patients with chronic or persistent supraventricular tachycardias, including atrial fibrillation or flutter. Asynchronous pacing is contraindicated in the presence (or likelihood) of competition between paced and intrinsic rhythms. Single chamber atrial pacing is contraindicated in patients with an AV conduction disturbance. Antitachycardia pacing (ATP) therapy is contraindicated in patients with an accessory antegrade pathway. CRT ICDs are contraindicated in patients experiencing tachyarrhythmias with transient or reversible causes including, but not limited to, the following: acute myocardial infarction, drug intoxication, drowning, electric shock, electrolyte imbalance, hypoxia, or sepsis; patients who have a unipolar pacemaker implanted, patients with incessant ventricular tachycardia (VT) or ventricular fibrillation (VF), and patients whose primary disorder is chronic atrial tachyarrhythmia with no concomitant VT or VF. Warnings/Precautions: Changes in a patient’s disease and/or medications may alter the efficacy of the device’s programmed parameters. Patients should avoid sources of magnetic and electromagnetic radiation to avoid possible underdetection, inappropriate sensing, and/or therapy delivery, tissue damage, induction of an arrhythmia, device electrical reset or device damage. Do not place transthoracic defibrillation paddles directly over the device. Additionally, for CRT ICDs and CRT IPGs, certain programming and device operations may not provide cardiac resynchronization. Also for CRT IPGs, Elective Replacement Indicator (ERI) results in the device switching to VI pacing at 65 ppm. In this mode, patients may experience loss of cardiac resynchronization therapy and/or loss of AV synchrony. For this reason, the device should be replaced prior to ERI being set. Use of the device should not change the application of established anticoagulation protocols. Potential Complications: Potential complications include, but are not limited to, rejection phenomena, erosion through the skin, muscle or nerve stimulation, oversensing, failure to detect and/or terminate arrhythmia episodes, and surgical complications such as hematoma, infection, inflammation, and thrombosis. An additional complication for CRT ICDs is the acceleration of ventricular tachycardia.

See the device manual for detailed information regarding the implant procedure, indications, contraindications, warnings, precautions, and potential complications/adverse events. For further information, please call Medtronic at 1 (800) 328-2518 and/or consult Medtronic’s website at www.medtronic.com. Caution: Federal law (USA) restricts these devices to sale by or on the order of a physician.