

**AUG 28, 2023**

# ESC Congress 2023: Real-world analyses highlight benefits of Medtronic ICDs for preventing sudden cardiac death

- Improved survival with ICD therapy: nearly 25% lower risk of death in indicated patients receiving an ICD vs. no ICD
- ICDs confer additional long-term benefits after initial device replacement

Medtronic plc (NYSE: MDT), a global leader in healthcare technology, announced results from two analyses demonstrating survival benefits and a reduction in life-threatening cardiac events with the use of implantable cardioverter defibrillators (ICDs). The data provide real-world evidence supporting the use of Medtronic ICDs for indicated patients, further reinforcing findings from landmark ICD studies, but in a contemporary patient population. Angelo Auricchio, M.D., presented the analyses at the ESC (European Society of Cardiology) Congress 2023 in Amsterdam.

ICDs are highly effective in providing life-saving therapy for patients at risk of dangerously fast or irregular heart rhythms (ventricular tachycardia or ventricular fibrillation) that can lead to sudden cardiac death (SCD). However, ICDs remain significantly underutilized in patients who are medically indicated for them.

## **ICDs Associated with 24.3% Decreased Risk of All-Cause Death**

This retrospective analysis aimed to determine the current impact of ICDs on survival in patients who have not previously experienced a life-threatening arrhythmia (primary prevention patients). It used de-identified, real-world, contemporary data from 2012 through 2020. A total of 25,296 patients had a primary prevention ICD indication, of which 2,118 (8.4%) received an ICD within a year. Patients who received an ICD had a 24.3% lower risk of death than patients with similar characteristics who did not receive an ICD.

"ICD therapy has had a number of landmark clinical trials, dating back nearly two decades; over the years, both medical technology and optimal medical therapy have continued to evolve. These analyses show that today's ICDs continue to positively impact patient survival - in tandem with modern heart failure medications," said Prof. Auricchio, Deputy Head of Cardiology and Director of the Clinical Electrophysiology Unit at Fondazione Cardiocentro Ticino, Lugano, Switzerland and lead author of the two analyses.

## **Additional Analysis Underscores Device Replacement Necessary for Long-Term SCD Prevention**

This real-world analysis examined the incidence of ICD therapy after routine device replacement in patients who didn't receive therapy from their first ICD. De-identified data on 10,742 patients from the Medtronic CareLink™ database receiving a replacement device after 2012 through the present day was utilized: 9,397 primary prevention patients and 1,345 secondary prevention patients. Time-to-first appropriate therapy [either shock and/or anti-tachycardia pacing (ATP) therapy] after ICD replacement was evaluated through seven years post-replacement.

At seven years, the incidence of first appropriate therapy in primary prevention patients was 28% (17% shock and 24% ATP). For secondary prevention patients, the rates of first appropriate therapy were 24% (14% shock and 19% ATP).

Prof. Auricchio continued, "We should not assume that a primary or secondary prevention patient who didn't receive therapy from their first ICD can go unprotected without a replacement device despite continuation of guideline-recommended pharmacological therapy. ICDs should continue to be offered as the gold standard for life-saving intervention for all indicated patients."

These data on the benefits of ICDs in a contemporary patient population follow an analysis of commercially available Medtronic ICDs presented at Heart Rhythm 2023 showing nearly half of first-time ICD patients receive appropriate therapy for ventricular tachyarrhythmias through seven years post implant.<sup>1</sup>

### **About Medtronic**

Bold thinking. Bolder actions. We are Medtronic. Medtronic plc, headquartered in Dublin, Ireland, is the leading global healthcare technology company that boldly attacks the most challenging health problems facing humanity by searching out and finding solutions. Our Mission – to alleviate pain, restore health, and extend life – unites a global team of 95,000+ passionate people across more than 150 countries. Our technologies and therapies treat 70 health conditions and include cardiac devices, surgical robotics, insulin pumps, surgical tools, patient monitoring systems, and more. Powered by our diverse knowledge, insatiable curiosity, and desire to help all those who need it, we deliver innovative technologies that transform the lives of two people every second, every hour, every day. Expect more from us as we empower insight-driven care, experiences that put people first, and better outcomes for our world. In everything we do, we are engineering the extraordinary. For more information on Medtronic (NYSE:MDT), visit [www.medtronic.com](http://www.medtronic.com) and follow [@Medtronic](https://twitter.com/Medtronic) on Twitter and [LinkedIn](https://www.linkedin.com/company/medtronic).

**Any forward-looking statements are subject to risks and uncertainties such as those described in Medtronic's periodic reports on file with the Securities and Exchange Commission. Actual results may differ materially from anticipated results.**

<sup>1</sup> Curtis AB, Auricchio A, Mittal S, et al. Contemporary Implantable Cardioverter-Defibrillator Benefit: A Real-World Analysis. Presented at Heart Rhythm 2023, May 20, 2023.

### **Contacts:**

Tracy McNulty  
Public Relations  
+1-763-526-2492

Ryan Weispfenning

Investor Relations

+1-763-505-4626

<https://news.medtronic.com/ESC-Congress-2023-Real-World-Analyses-Highlight-Benefits-of-Medtronic-ICDs-for-Preventing-Sudden-Cardiac-Death>