ENGINEERED FOR THE FUTURE OF CONNECTED HEALTH

Azure™ pacemaker with BlueSync™ Technology

- Completely Redesigned
- Improved Longevity
- Secure Wireless Communication with BlueSync Technology
- AF Detection and Reduction

Medtronic
**High Density Integrated Circuit**

reduces current drain for increased longevity

Bluetooth® Low Energy (BLE) enabled to automatically and securely communicate with BLE smartphones or tablets

Encryption Module
Data are encrypted in the pacemaker using NIST* standard encryption

Key Design Changes

- **Bluetooth® Low Energy (BLE)** enabled to automatically and securely communicate with BLE smartphones or tablets
- **Encryption Module**
- **High Density Integrated Circuit** reduces current drain for increased longevity

**COMpletely ReDesigned**

With BlueSync™ Technology for Secure Wireless Communication via Bluetooth® Low Energy without Compromising Longevity^2

**IMPROVED LONGEVITY**

New hardware architecture optimizes circuitry to reduce current drain and improve longevity^2

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* NIST: National Institute of Standards and Technology.

^2: *DR: MVP™, SR: VVI 50%, 500 ohm, 2.5 V, pre-storage EGM off.

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**Key Design Changes**

- **Encryption Module**
- **High Density Integrated Circuit**

**IMPROVED LONGEVITY**

- **Advisa DR MRI™**
  - 10.8 years*
  - +27%

- **Azure XT DR MRI**
  - 13.7 years*

- **Advisa SR MRI™**
  - 12.7 years*
  - +24%

- **Azure XT SR MRI**
  - 15.8 years*
A controlled head-to-head study evaluating the comparative performance of device algorithms has not been done. AF detection accuracy rates determined from independent clinical trials are presented for reference.

**ACCURATE AF DETECTION**
Reduce AT/AF false positives with PR Logic™ algorithms

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**AF Episode Detection Accuracy (PPV)**

- Medtronic: 95-96%
- St. Jude Medical: 83%
- Boston Scientific: 62%

**REDUCE AF**

**REDUCE DURATION OF AF**
With Reactive ATP™
Reactive ATP provides an opportunity to terminate an ongoing AF episode by delivering ATP during those times when the rhythm has organized and/or slowed.

**Analysis Design**
An analysis of 8,032 patients in the Medtronic CareLink™ database assessed the impact of Reactive ATP across pacemakers, ICDs, and CRT devices.

**Results**
Reactive ATP is associated with a reduction in the duration of AT/AF:
- ≥ 1 day by 21%
- ≥ 7 days by 40%
- ≥ 30 days by 49%

40% reduced risk of persistent AF*3

* Compared to matched control group; matched components included age, sex, baseline AF & percent VP, pacing mode, and device type.

**REDUCE UNNECESSARY RV PACING**
With MVP™
Now updated with the option to control maximum AV interval
- RV pacing is associated with an increased risk of HF hospitalization.
- RV pacing is associated with a 1% increase in risk of AF for each 1% increase in cumulative RV pacing.
- MVP algorithm reduces unnecessary RV pacing by 99%.

**SIMPLE PROGRAMMING, NOMINALS UPDATED TO MINERVA™ SETTINGS**

**TIMELY ALERTS OF CLINICALLY RELEVANT EVENTS**
CareAlert™ notifications can be programmed and viewed only by the clinician:
- AT/AF Burden Notification
- Lead Impedance
- Low Battery Voltage @ RRT
- VT Episodes
- Fast V. Rate During AT/AF
- Capture Management™
- % V. Pacing

Wireless alerts can now be transmitted via Bluetooth using the MyCareLink Heart™ mobile app, providing patient monitoring — even outside the home.

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CAPTURING THE POWER OF SMART TECHNOLOGY

Adoption of smart technology is increasing

- 73% of Americans 60 years and older own a smartphone.14
- 62% of consumers use their phones to look up health information.15
- 83% of payers and providers believe that consumers need to take more control of their health in a value-based system.16

Our first generation of smart technology* in the hands of our patients resulted in the following:

- **USE OF SMART** >95,000 patients have adopted MyCareLink Smart™ monitor globally.17
- **PATIENT SATISFACTION** 85% of over 2,300 patients said they would recommend MyCareLink Smart monitor to other patients18
- **ADHERENCE** 90% of 1,291 patients — and 89% of 444 patients over 70 years of age — using MyCareLink Smart monitor remained adherent to HRS guidelines after 12 months of use19

This spurred Medtronic’s continued innovation in remote monitoring by enabling the Azure pacemaker with BlueSync technology to communicate directly with a patient-owned mobile platform.

*MyCareLink Smart is not compatible with BlueSync-enabled devices.
ENGINEERED FOR THE FUTURE OF CONNECTED HEALTH

Azure™ with BlueSync™ Technology

Innovation in consumer digital tools is creating new opportunities in healthcare. BlueSync technology allows Medtronic to innovate and connect with patients and clinicians in new and exciting ways.

MyCareLink Heart™ Mobile App

- Patients can now use their smartphone* to transfer heart device data via the app — even outside the home — replacing the bedside monitor.
- Patients can now view select pacemaker data, including model name and battery longevity.

*Please visit www.MCLHeart.com for a list of compatible smartphones and tablets.

New tablet-based CareLink SmartSync™ device manager pacing system analyzer (not yet broadly available)

Azure pacemaker engineered with BlueSync technology

MyCareLink Heart mobile app on patient’s smartphone or tablet

CareLink™ network

Pacemaker with BlueSync technology

Patient’s smartphone

Cellular or Wi-Fi

CareLink network

MyCareLink Heart allows the patient to view select data (content of transmissions and alerts is not visible to the patient)

Enhanced security with data encryption and pacemaker protection¹

Automatic notifications inform patients of transmission status

Use of Bluetooth Low Energy is designed to minimize battery drain of the pacemaker¹

Upgradeable throughout lifetime of device
**BENEFITS**

MyCareLink Heart mobile app is designed to offer the following benefits:

### Patient Engagement Promotes Patient Satisfaction

- Integrate remote monitoring into your patient’s daily life using a patient-owned smartphone and eliminate the need for a bedside monitor.
- Provide patient peace of mind with the MyCareLink Heart app which allows patients to view select data, such as transmission status.
- Activated patients are significantly more likely to engage in healthy behaviors.\(^2\)

### Patient Compliance Results in Increased Clinic Efficiencies

- Patient monitoring — even outside the home — helps deliver quality of care in line with HRS guidelines.
- Reduce clinic time spent on follow-up activities.
- Push notifications help patients stay connected, transmit on time, and verify that transmissions were sent.

### Upgradeability Sets the Foundation for Future Technologies

Similar to consumer apps, as technology advances, so will MyCareLink Heart throughout the life of the pacemaker.
OVERVIEW

MyCareLink Heart mobile app allows patients to easily view select data — intended to provide peace of mind of patients living with a pacemaker.

All patient and clinical data are fictitious and for demonstration purposes only.
SECURITY MEASURES

Security for BlueSync connectivity and features was designed to protect the device, patient data, and connectivity. In addition to Medtronic’s extensive internal product security testing, Medtronic has also engaged outside specialized security testing firms.

Pacemaker Protection

- Pacemaker does not accept programming from unauthorized sources. It only accepts programming from Medtronic programmers in close proximity.
- Device not connected to Internet

Medtronic Pacemaker with a companion smartphone app, MyCareLink Smart, allows the patient to wirelessly monitor and send data to Medtronic CareLink network. The patient can be notified via the smartphone’s remote alert feature that their device requires programming.

Data Privacy

End-to-end encryption: Data are encrypted in the pacemaker using NIST* government standard for security (used in critical applications) like banking before they are transmitted to CareLink network via the app.

- *NIST: National Institute of Standards and Technology

UNMATCHED MRI ACCESS

With Azure MRI, patients have access to 1.5T and 3T full body scanning

Built to be scanned

- Our SureScan™ devices and leads work well in any combination.
- Scanning conditions are simple: no MRI exclusion zone, no patient height restriction, no MRI duration limitation.

References

7. Anderson GS. AARP. Technology Use and Attitudes among Mid-Life and Older Americans. 2016.