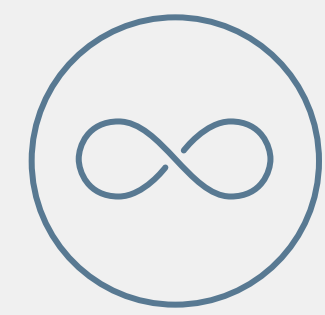


Ultraslim
BIOshape



Extended
Longevities



Simplified Therapy
Optimization



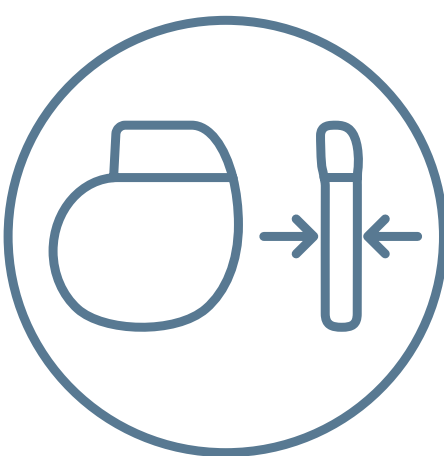
Acticor
DR Smart. VR Simple. CRT Capable.

Rivacor
More Life. Made Simpler.



Ultraslim BIOshape

Acticor and Rivacor are the smallest, slimmest ICDs/CRT-Ds approved for 3T full-body MRI scans.



Revolutionary Updated Design

The Ultraslim BIOshape of Acticor and Rivacor devices feature a thinner form factor and a more rounded, elliptical design, which may reduce skin pressure and help minimize pocket erosion, improving patient comfort.

With Acticor, proven DX technology is now DF4 compatible, further reducing potential complications for patients by simplifying procedures and device connections.

DR SMART. VR SIMPLE.

BIOTRONIK DX system performance is **superior** to traditional single-chamber ICDs and **equivalent** to dual-chambers ICDs for detection of atrial high rate episodes (AHREs) or atrial arrhythmia detection.¹ This **superior** single-lead, primary prevention ICD system has the unique advantage of dual-chamber diagnostics with a single high-performance lead.

SENSE Trial Results¹

	VR-T	DX	DR-T
AHRE Detection Rate at 12-months post implant	5.3%	13.0%	13.0%

- DX delivered zero inappropriate therapies
- Stable p-waves over time
- No DX cohort patient developed need for atrial pacing

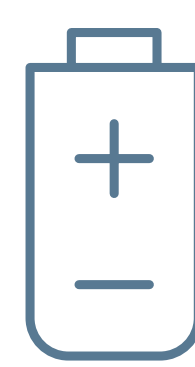
1. Thomas G et al. *J Cardiovasc Electrophysiol*. 2019, <https://doi.org/10.1111/jce.14081>.
Disclaimer: Information on devices manufactured at companies other than BIOTRONIK was gathered from multiple sources. However, it has not been verified by the vendors and we cannot guarantee its accuracy.





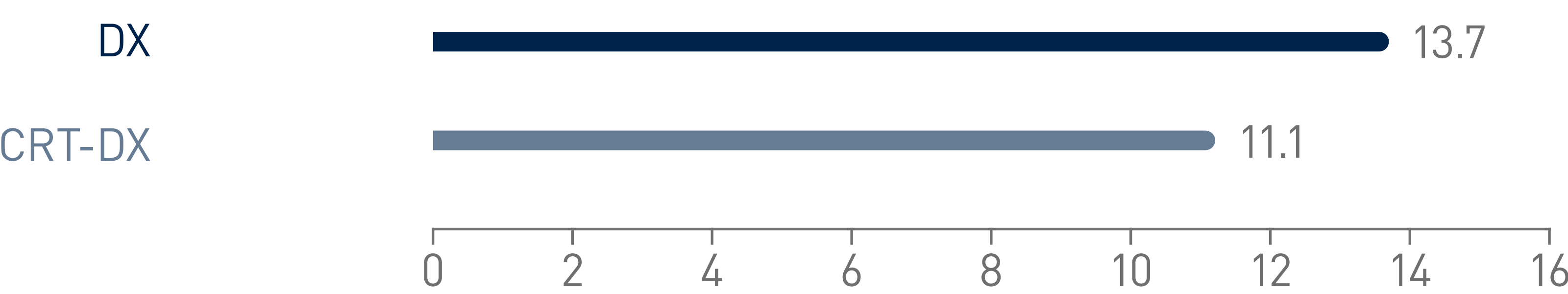
Extended Longevities

Helps reduce risk for patients and may reduce cost for hospital systems.



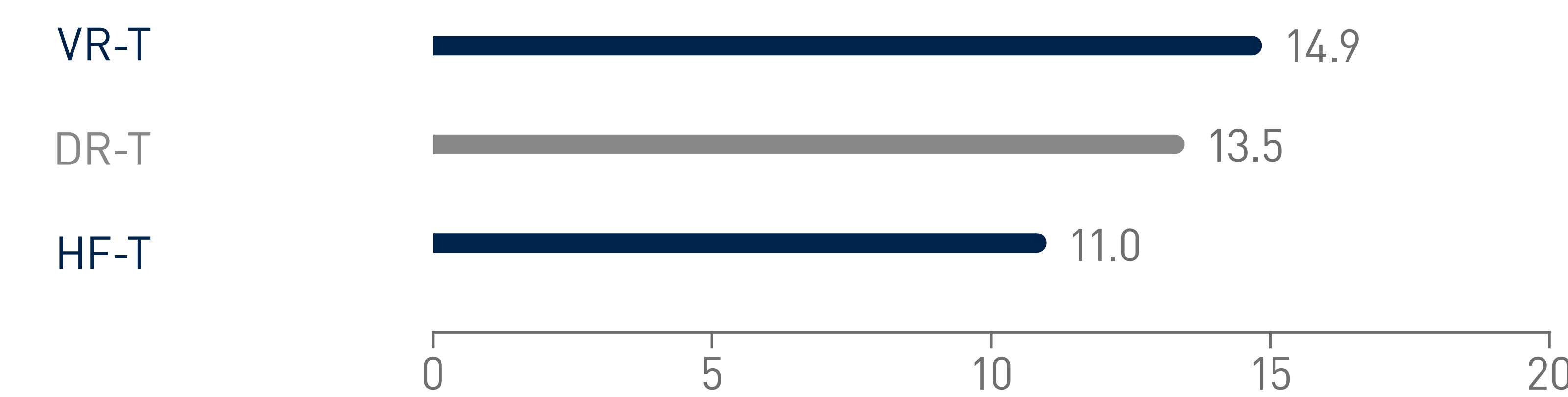
Nearly 14 years for Acticor DX*

Acticor Longevity (Years)



Nearly 15 years for Rivacor VR-T**

Rivacor Longevity (Years)

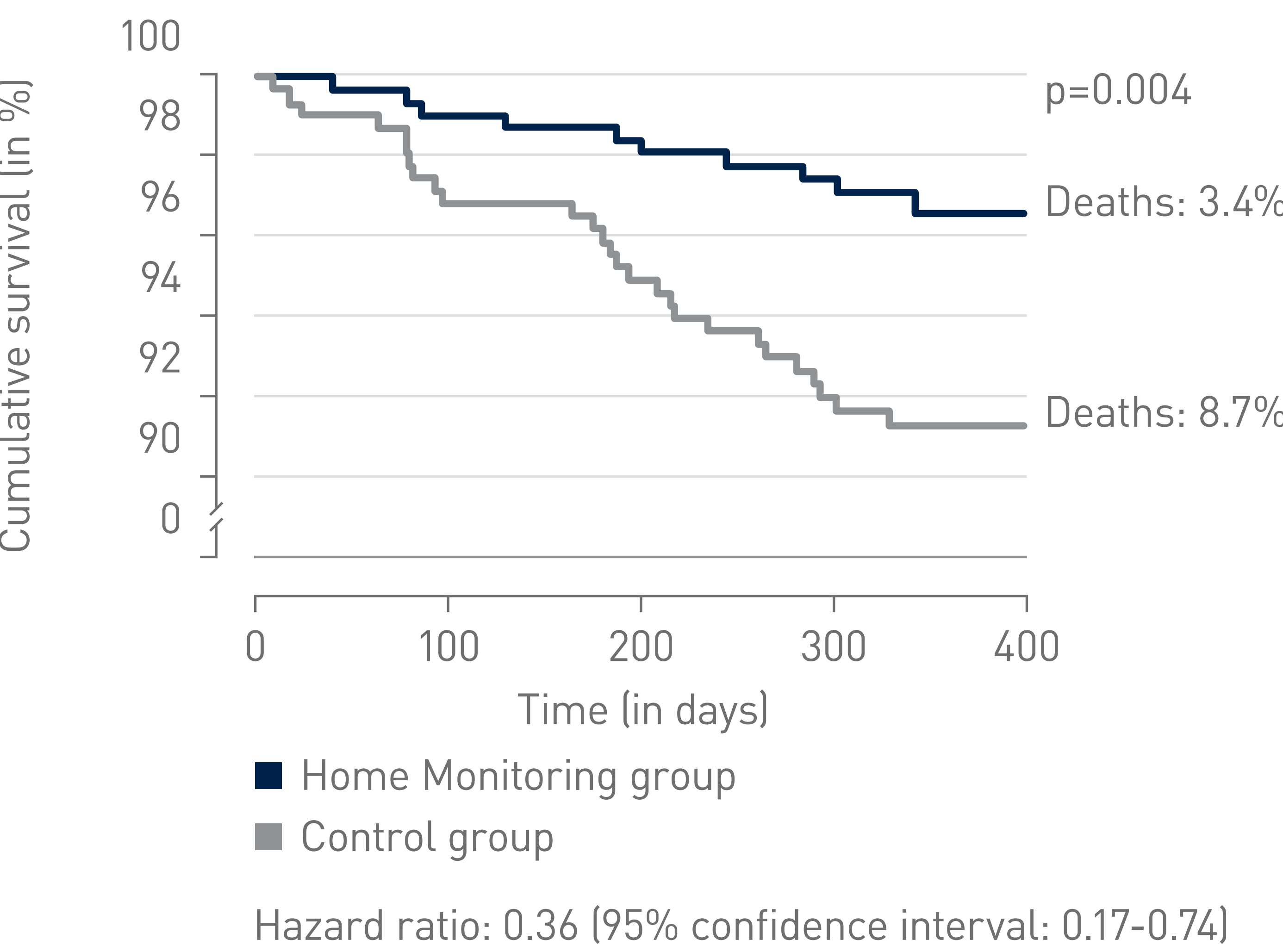


IN-TIME² DEMONSTRATES THE SUPERIORITY OF BIOTRONIK HOME MONITORING[®]

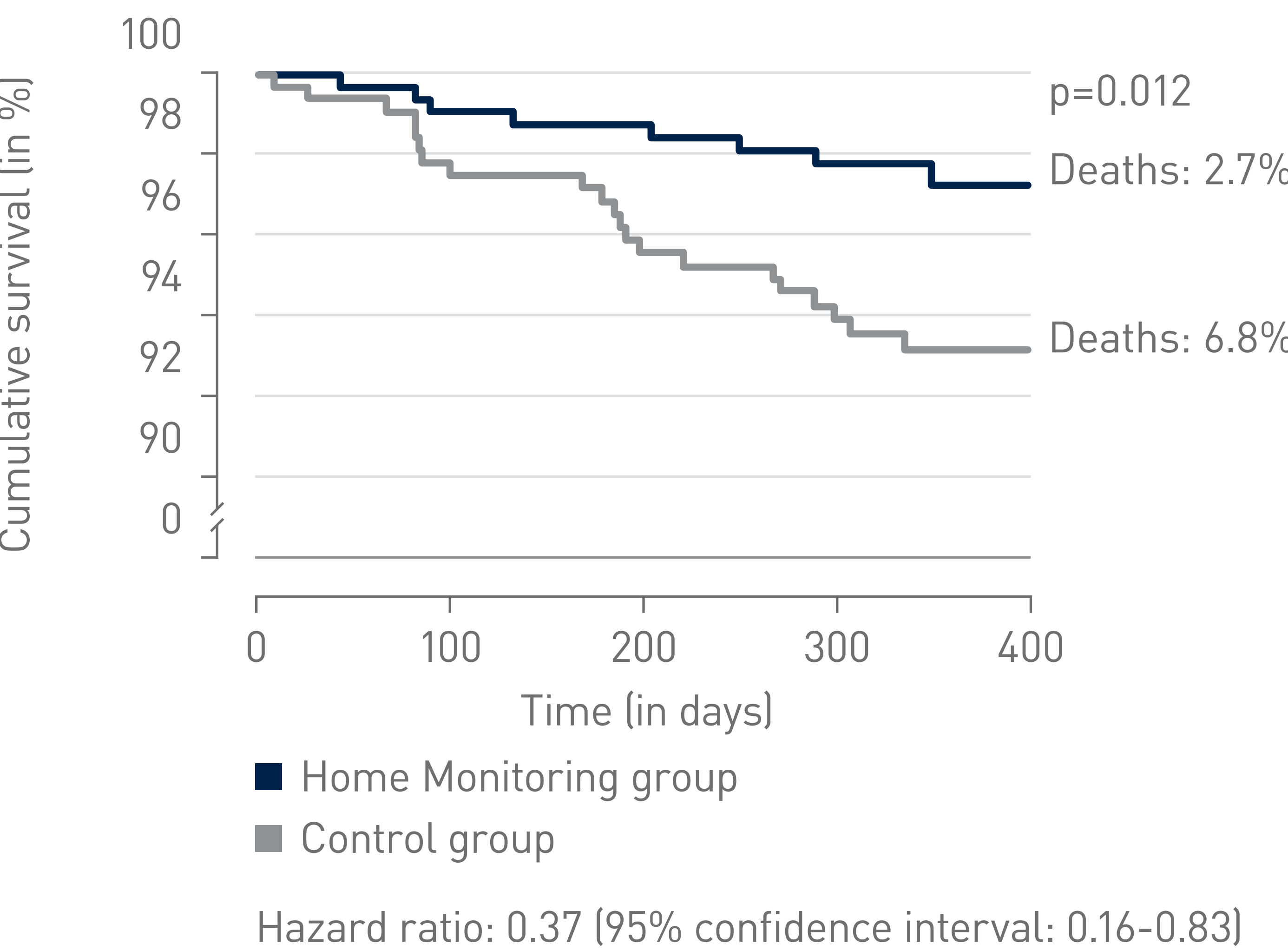


ICD and CRT devices with BIOTRONIK Home Monitoring[®] have demonstrated improved patient outcomes repeatedly over a series of studies.^{2,3,4} Competitive remote monitoring systems have attempted to show improvements in mortality in clinical studies and have been unsuccessful.^{5,6,7} Now with Acticor/Rivacor, BIOTRONIK has created a simple IN-TIME template to support workflow optimization and to help realize the benefits demonstrated with BIOTRONIK Home Monitoring.

All-cause mortality



Cardiovascular mortality

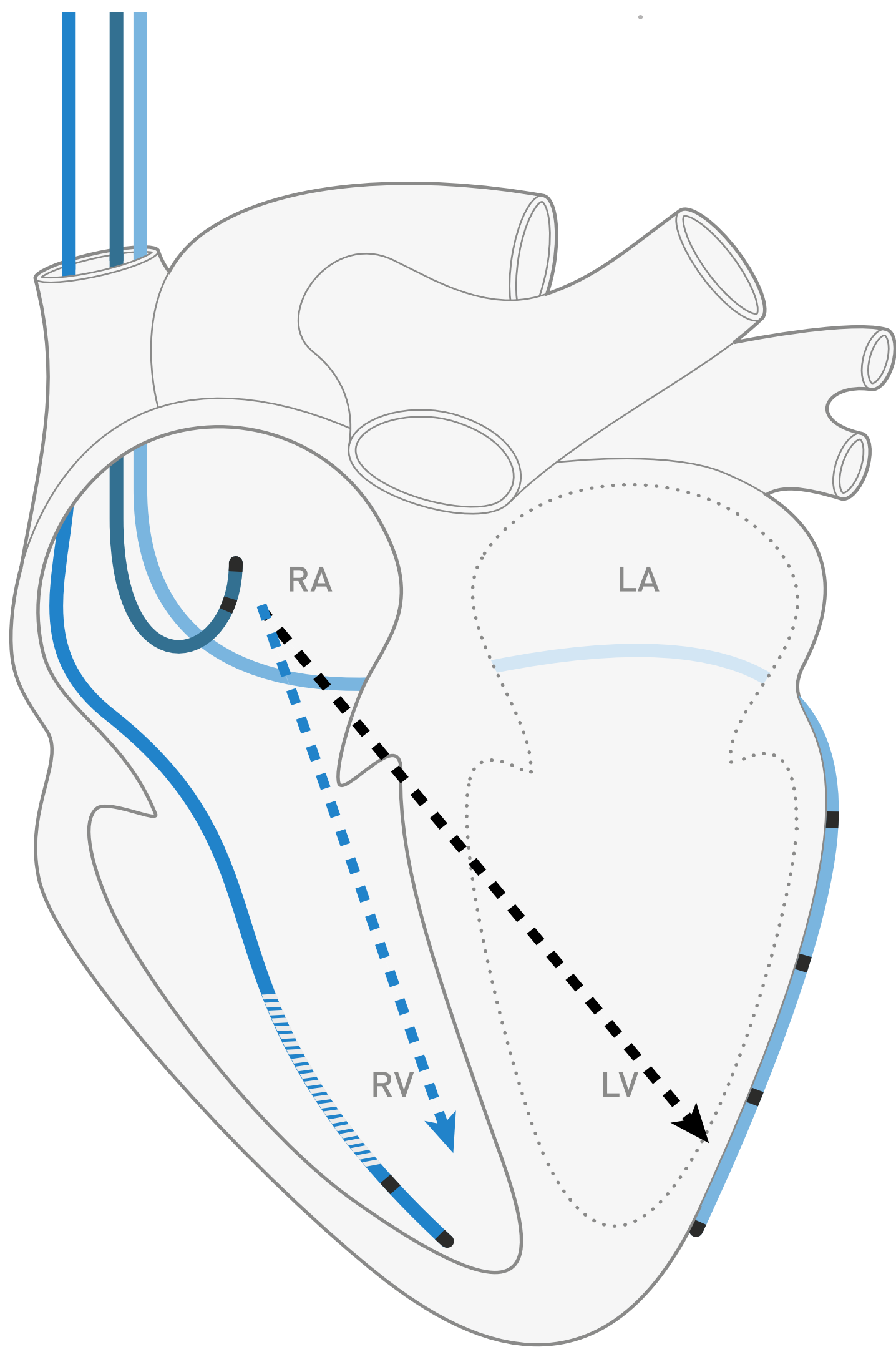
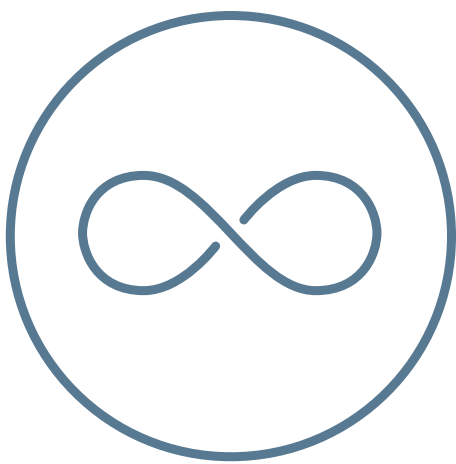


*DX: HM daily transmissions, 3 channel IEGMs ON, shelf life: 6 months, semi-annual shocks, 60 bpm, 700 Ω , 2.0V@0.4 ms, 15% pacing.
*CRT-DX: HM daily transmissions, 3 channel IEGMs ON, shelf life: 6 months, semi-annual shocks, 60 bpm, 700 Ω , 2.0V@0.4 ms RV/LV, 100% BiV pacing.
**VR-T: HM daily transmissions, 3 channel IEGMs ON, shelf life: 6 months, semi-annual shocks, 60 bpm, RV: 700 Ω , 2V@0.4ms, 15% pacing.
**DR-T: HM daily transmissions 3 channel IEGMs ON, shelf life: 6 months, semi-annual shocks, 60 bpm, RA: 500 Ω / RV:700 Ω , 2.0V@0.4ms 15% pacing.
**HF-T: HM daily transmissions 2 channel IEGMs ON, shelf life: 6 months, semi-annual shocks, 60 bpm, RA, RV, LV: 700 Ω , 2.0V@0.4ms 15% atrial pacing, 100% BiV pacing.
2. Hindricks G et al. *The Lancet*. 2014, 384(9943). 3. Hindricks G et al. *Eur Heart J*. 2017, 38(22). 4. Varma N et al. *Circulation*. 2010, 122(4). 5. Morgan JM et al. *Eur Heart J*. 2017, 38(30). 6. Bohm M et al. *Eur Heart J*. 2016, 37(41). 7. Boriani G et al. *Eur Heart J*. 2017, 19(3).



Simplified Therapy Optimization

Continuous CRT Optimization with CRT AutoAdapt



To meet each patient’s unique and dynamic pacing needs, CRT AutoAdapt continuously adjusts the AV delay and pacing chamber selection, taking the patient’s individual A-RV and A-LV conduction patterns into account. CRT AutoAdapt sets the ventricular pacing configuration to LV-only pacing, dynamic LV and RV pacing or BiV pacing with Adapt AV.

HIGHLY COMPETITIVE PACING OPTIONS

	BIO	MDT	BSX	ABT
Physiologic Pacing	CLS	-	-	-
Optimize AV Timing	AV Opt	Cardiosync Optimization	Smart AV	QuickOpt
Automatic AV Optimization	Negative AV Hysteresis	AdaptivCRT	-	Sync AV
Real time LV adaptive pacing	CRT AutoAdapt	AdaptivCRT	-	-
LV Capture Control	On 1st and 2nd LV paces with MPP*	Effective CRT	LV Capture control	LV Capture control
LV QP Vectors	20	16	17	10

*MultiPole Pacing: The clinical effectiveness of this feature has not been established.

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