Results of the RESPOND-CRT



The Respond CRT System™

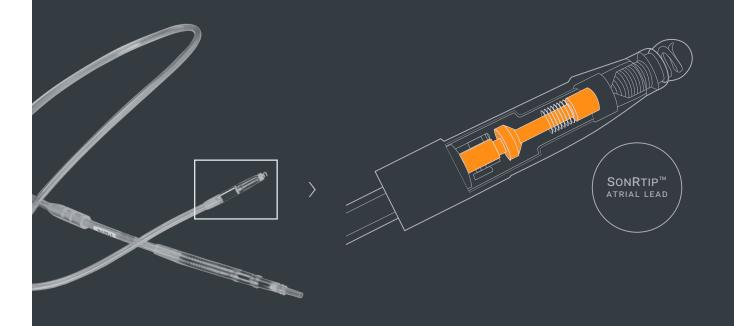
is a unique combination of a cardiac contractility sensor with an advanced optimization algorithm*.



A CARDIAC CONTRACTILITY SENSOR*



The SonRTM sensor consists of a micro-accelerometer embedded in the tip of the SonRtipTM atrial lead. SonRTM measures the vibrations generated by the myocardium during cardiac contractions, which are correlated to LV dP/dt max. 1,2,3





The SonR™ sensor continuously measures the contractility of the heart allowing for automatic optimization of AV and VV intervals. Optimization is performed on a weekly basis both at rest and during exercise.

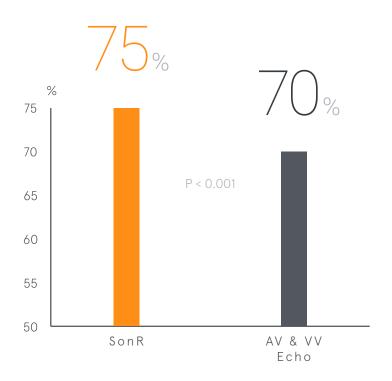
This allows for cardiac resynchronization therapy to be continuously adapted to the individual needs of each patient.



RESPOND-CRT is an international, multicenter, randomized (2:1), prospective, double-blinded, non-inferiority study. The objective was to demonstrate that automatic optimization with SonR™ technology was safe and as effective as best practice AV and VV optimization using echocardiography.

The RESPOND-CRT trial successfully met its primary end point with 75% of clinical responders in the SonR group versus 70% in the control group at 12 months.⁴ (p<0.001)

Clinical Response* to CRT



/ / %

of clinical responders⁴.

The highest rate of responders ever reported using automatic device-based optimization. 5,6,7

Risk reduction in HF hospitalization



Long term follow up shows a significant risk reduction in HF hospitalization for patients optimized with the Respond CRT SystemTM. ⁴

Freedom from HF hospitalization



N°. at risk ————————————————————————————————————													
SonR	670	641	617	600	588	579	498	418	408	339	250	244	135
Echo	328	315	304	289	277	269	229	191	189	171	119	144	49

Consistently favorable response in most subgroups 4

Clinical response across the board is more likely with the Respond CRT System™, whatever the patients' baseline conditions.⁴

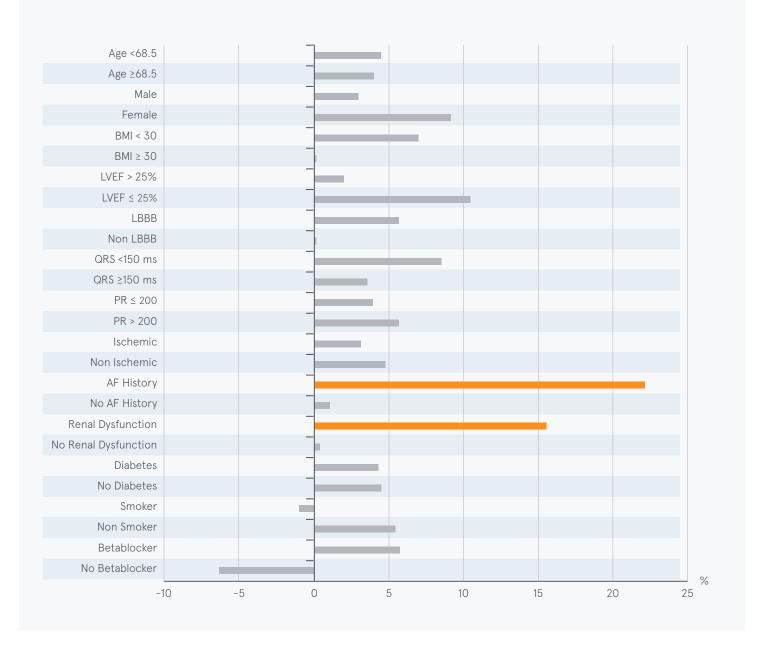
Responder rate, odds ratio and interaction P value for subgroups*

VARIABLE		SonR N=649	Echo N=318	P value	Echo Better	SonR Better	Odds Ratio
Overall		75.0	70.4				1.26
A .	<68.5 years	72.6	68.1			-	1.25
Age	≥68.5 years	77.3	73.2	0.99	-	-	1.25
	Male	71.6	68.6	0.07	-	-	1.15
Gender	Female	83.1	73.9	0.23		-	1.74
DMI	<30kg/m2	76.5	69.5	0.70			1.43
ВМІ	≥30kg/m2	72.2	72.0	0.30	_	-	1.01
1)/55	>25%	74.7	72.7	0.04	-	-	1.10
LVEF	≤25%	75.8	65.3	0.21		-	1.66
0.00	LBBB	76.8	71.1	0.54		-	1.35
QRS morph.	Non LBBB	66.0	65.8	0.51	_	+	1.01
ODC Danielian	<150 ms	68.0	59.5	0.70		-	1.45
QRS Duration	≥150 ms	77.9	74.3	0.62		-	1.22
DD Intomed	≤200 ms	78.0	74.0	0.00		-	1.24
PR Interval	>200 ms	71.6	65.9	0.89	-	-	1.30
0	Ischemic	69.9 66.7		0.70	-	-	1.16
Cardiomyopathy	Non-Ischemic	79.1	74.3	0.70		-	1.31
Litata a f A F	Yes	70.2	48.1	0.07			2.55
History of AF	No	75.9	74.8	0.03	-	-	1.06
Daniel Daniel and Han	Yes	61.9	46.3	0.07		-	1.89
Renal Dysfunction	No	79.1	78.6	0.07	-	-	1.03
Diabataa	Yes	72.3	67.9	0.00	-	-	1.23
Diabetes	No	76.8	72.2	0.90		 -	1.28
Cmaltar	Yes	69.6	70.6	0.40	_	-	0.96
Smoker	No	75.9	70.4	0.49		-	1.32
Doto Diodros	Yes	76.1	70.3	0.27		-	1.35
Beta Blocker	No	65.7	72.0	0.27	_		0.74
				-2.0	O 1.	.00 4.00	_

^{*}P values < 0.15 were considered significant for interaction

CRT Response Rate Improvement

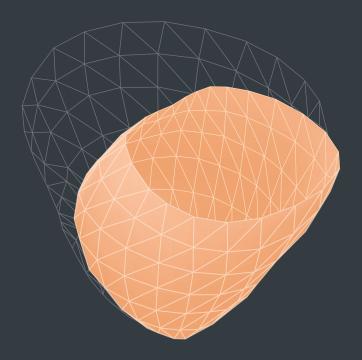
SONR VERSUS ECHO AV & VV



absolute higher response in patients with AF history 4

16%

absolute higher response in patients with renal dysfunction ⁴



The SonR™ sensor

Continuously measures cardiac contractility for automatic, individualized CRT optimization.

References

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