

# FastPath™ Summary

 **1 Alert**

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**Battery**

Longevity: 7,3 yrs



Implant Date: 3 May 2019




Last Max Charge 9,4 sec (28 Oct 2021)

Battery Current 13 uA

Remaining Capacity to ERI 78%

**Test Results** 29 Mar 2022


 Automatic

	Capture	Sense	Lead Impedance
V	0,75V @ 0,5ms (Bi) 0,625V @ 0,5ms (Bi) 17 Mar 2022	8,1mV (Bi)  9,7mV (Bi) 17 Mar 2022	360 Ω (Bi)  390 Ω (Bi) 16 Mar 2022
HV			62 Ω (RV to Can)  82 Ω (RV to Can) 16 Mar 2022

**Parameters**

		Zone Configuration	VT	VF
Mode	VVI	Detection Criteria	171 bpm	214 bpm
Base Rate	40 bpm	Therapy (ENABLED)	ATP x3	ATP x1
			25,0 J	36,0 J
			36,0 J	40,0 J
			40,0 J x2	40,0 J x4

**Capture & Sense**

	V
AutoCapture	On
Pulse Amplitude	1,0 V 
Pulse Width	0,5 ms
AutoSense	On
Sensitivity	Auto 

**Diagnostics Summary**

Since 3 May 2019

VP &lt;1 %

**VT/VF Episodes: 0**

Since 17 Mar 2022

	VT	VF
Episodes	0	0
ATP Delivered	0	0
Shocks Delivered	0	0

SVT Episodes: 0

Non-sustained Episodes: 0

**Alerts**


Updated ST Suggested Thresholds available for programming

▶ Manual-programmed    ▶ Auto-programmed

## Episodes Summary

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Episodes Last Cleared 3 May 2019 9:37  
SEGMs Last Cleared 3 May 2019 9:37

Last Read 29 Mar 2022 13:02

### Therapy Summary

	VT	VF
ATP Delivered	0	0
Shocks Delivered	0	0
Max Energy Shocks	0	0
Last HV Lead Impedance	n/a	
Total Aborted Shocks	0	

### Results of ATP Delivery

	VT	VF
Episodes Terminated	0	0
Episodes Not Terminated	0	0
Accelerations	0	

### Episode Tree

No tachyarrhythmia episodes detected

### VT/VF Episodes

No episodes recorded

### Other Episodes

Date / Time	Type	Peak A Rate (bpm)	Duration (D:H:M:S)	Alerts
29 Mar 2022 10:02	Morphology Template Update			
29 Mar 2022 7:02	Morphology Template Update			
29 Mar 2022 4:02	Morphology Template Update			
28 Mar 2022 22:02	Morphology Template Update			
28 Mar 2022 13:02	Morphology Template Update			
27 Mar 2022 16:02	Morphology Template Update			
27 Mar 2022 13:02	Morphology Template Update			
27 Mar 2022 7:02	Morphology Template Update			
27 Mar 2022 4:02	Morphology Template Update			
26 Mar 2022 16:02	Morphology Template Update			
26 Mar 2022 10:02	Morphology Template Update			
26 Mar 2022 1:02	Morphology Template Update			
25 Mar 2022 19:02	Morphology Template Update			
25 Mar 2022 13:02	Morphology Template Update			
25 Mar 2022 7:02	Morphology Template Update			
25 Mar 2022 4:02	Morphology Template Update			
24 Mar 2022 10:02	Morphology Template Update			
22 Mar 2022 19:02	Morphology Template Update			
22 Mar 2022 13:02	Morphology Template Update			
21 Mar 2022 22:02	Morphology Template Update			
21 Mar 2022 10:02	Morphology Template Update			
19 Mar 2022 22:02	Morphology Template Update			
19 Mar 2022 10:02	Morphology Template Update			
18 Mar 2022 19:02	Morphology Template Update			
18 Mar 2022 16:02	Morphology Template Update			
18 Mar 2022 13:02	Morphology Template Update			
18 Mar 2022 10:02	Morphology Template Update			
17 Mar 2022 19:02	Morphology Template Update			

## Extended Diagnostics

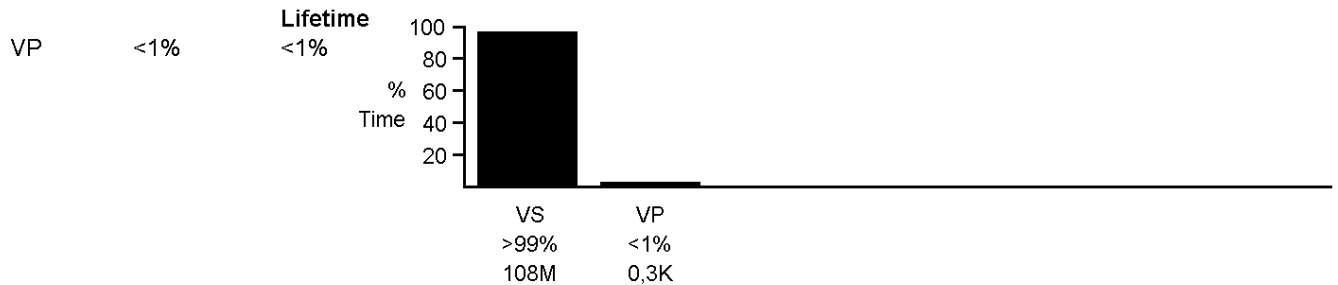
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### Parameters

Mode VVI  
Base Rate 40 bpm  
Max Sensor Rate 110 bpm

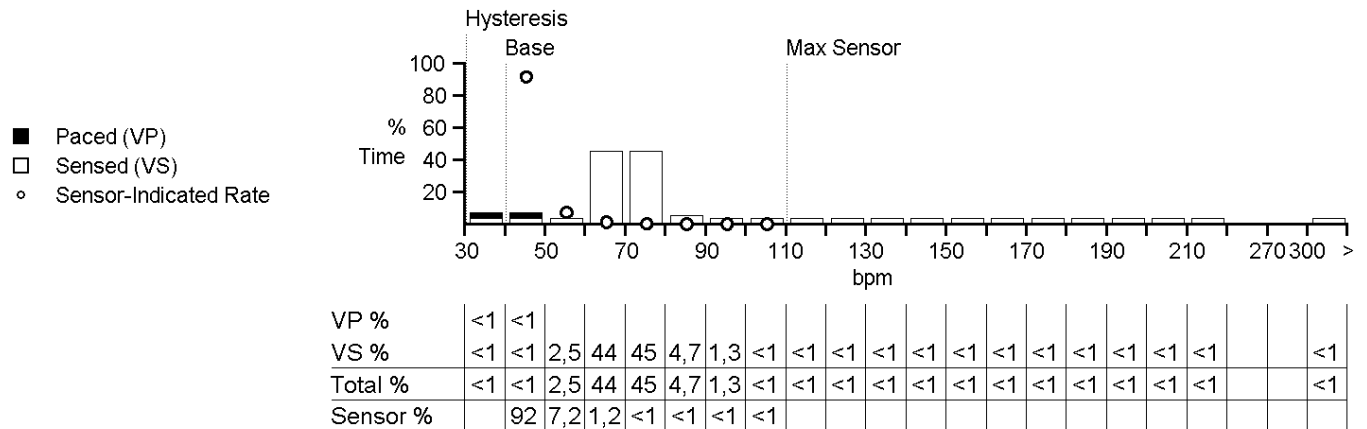
### Events

Since 3 May 2019



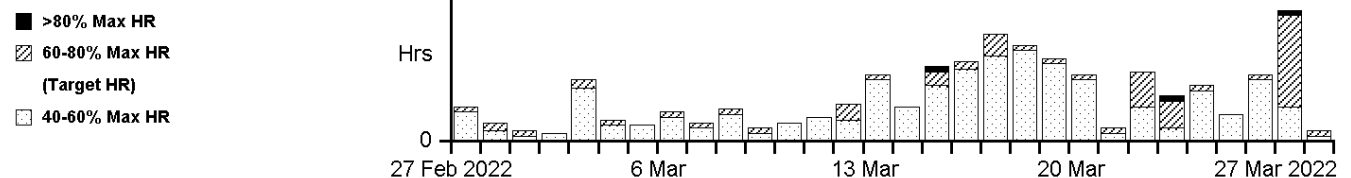
### Ventricular Heart Rate Histogram

Since 3 May 2019



### Daily Exercise Training (Activity >1 minute)

Max Heart Rate 143 bpm

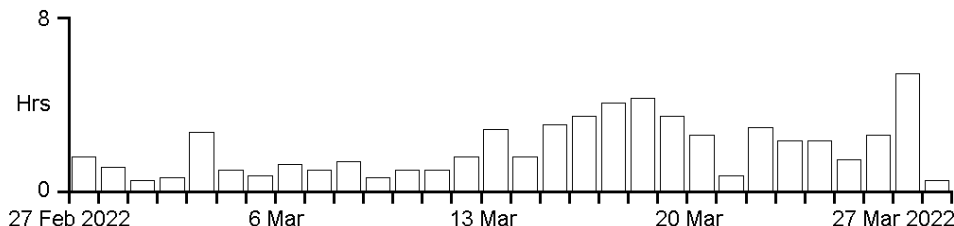


## Extended Diagnostics

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### Total Daily Activity

□ Activity



**ST Episodes** Since 3 May 2019  
 No episodes detected.

**VT/VF Episodes: 0** Since 17 Mar 2022  
 New Episodes within 15 Min. of an ST Episode: 0



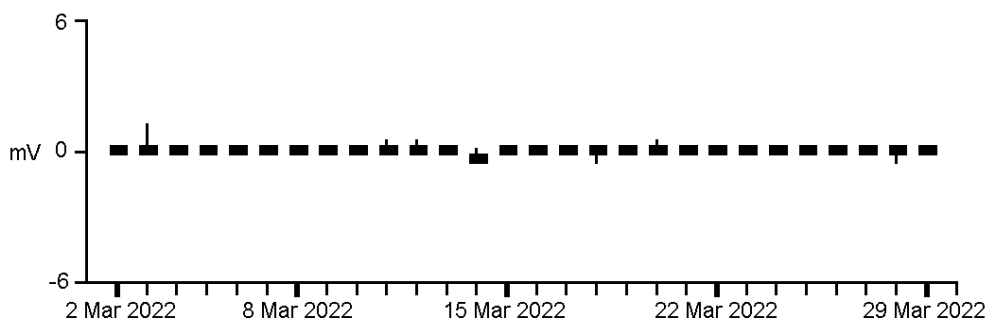
Episodes VT 0 VF 0  
 SVT Episodes: 0

Updated ST Suggested Thresholds available for programming.

### ST Deviation Trend Resting HR Zone: 40-86 bpm

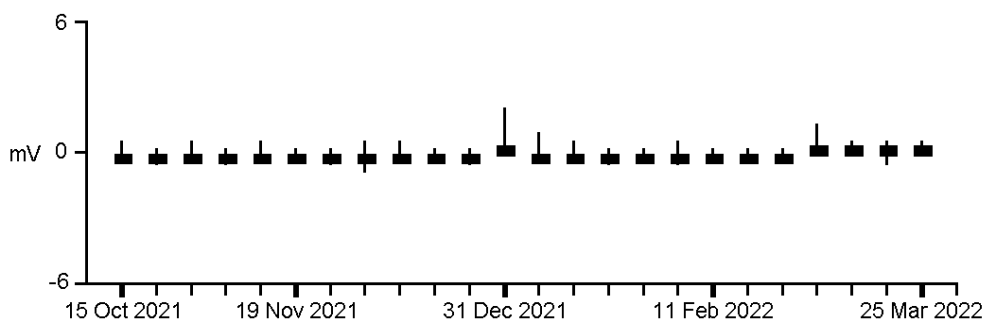
#### Last Month (daily)

► ST settings adjusted



#### Last 6 Months (weekly)

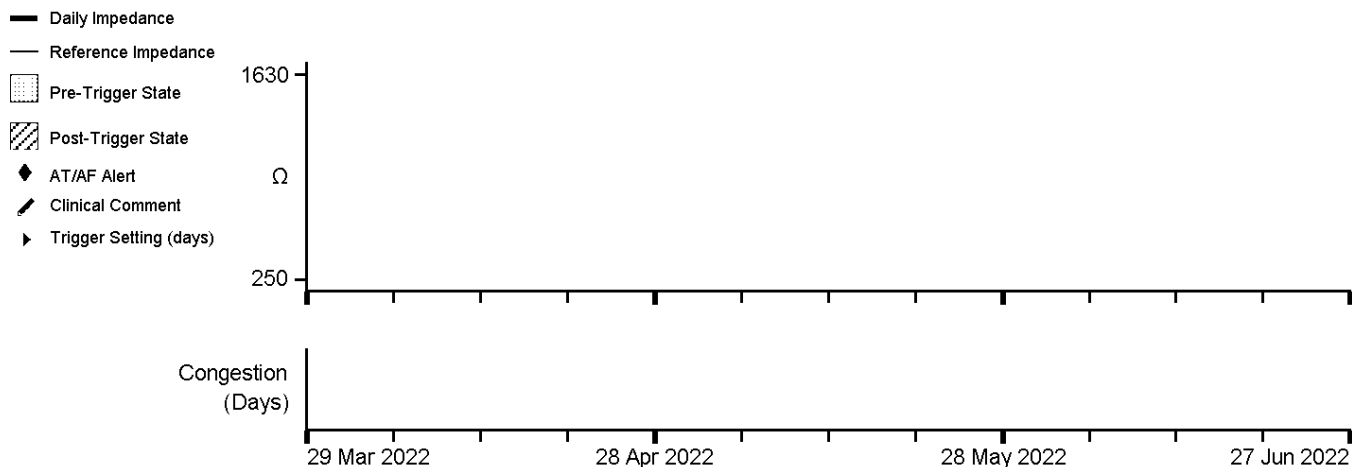
► ST settings adjusted



## Extended Diagnostics

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**CorVue™ Congestion Monitoring is OFF** (3 Month View)



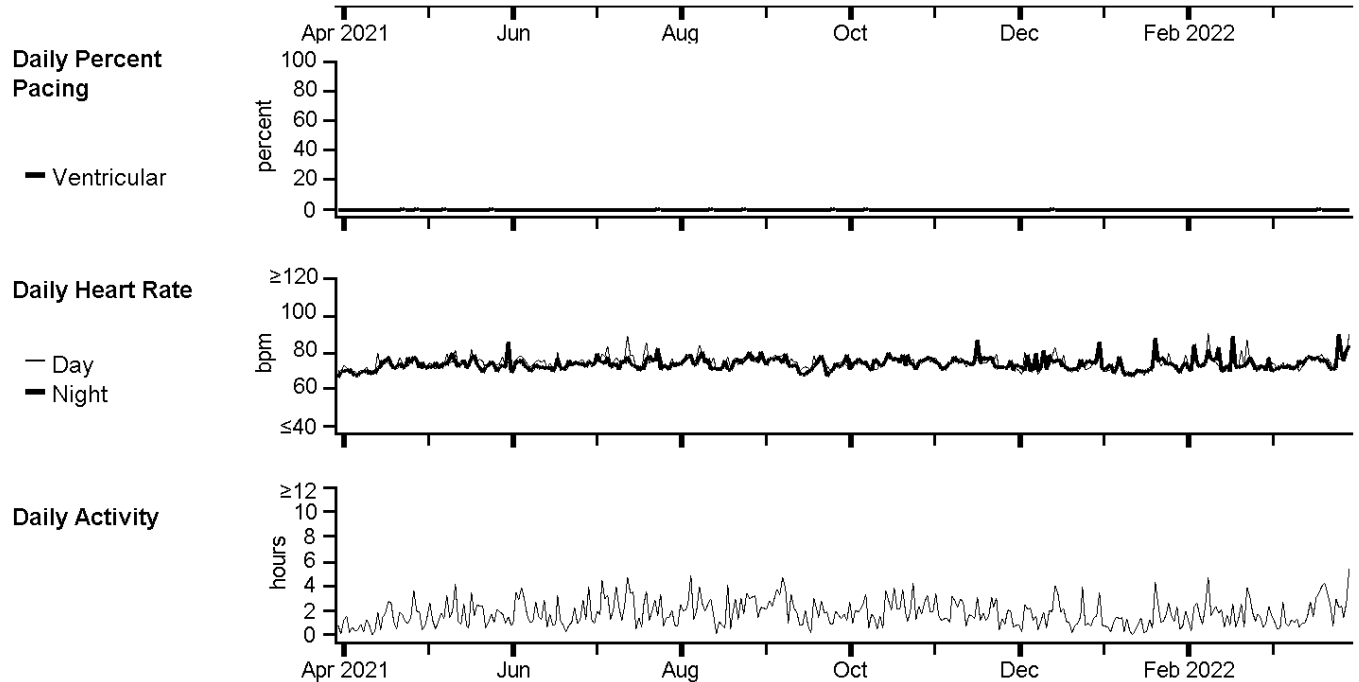
CorVue™ Congestion Monitoring is an additional information source for patient management. It is not meant to replace clinical assessments that are part of standard clinical practice.

**Congestion Details** (Last Session: 17 Mar 2022)

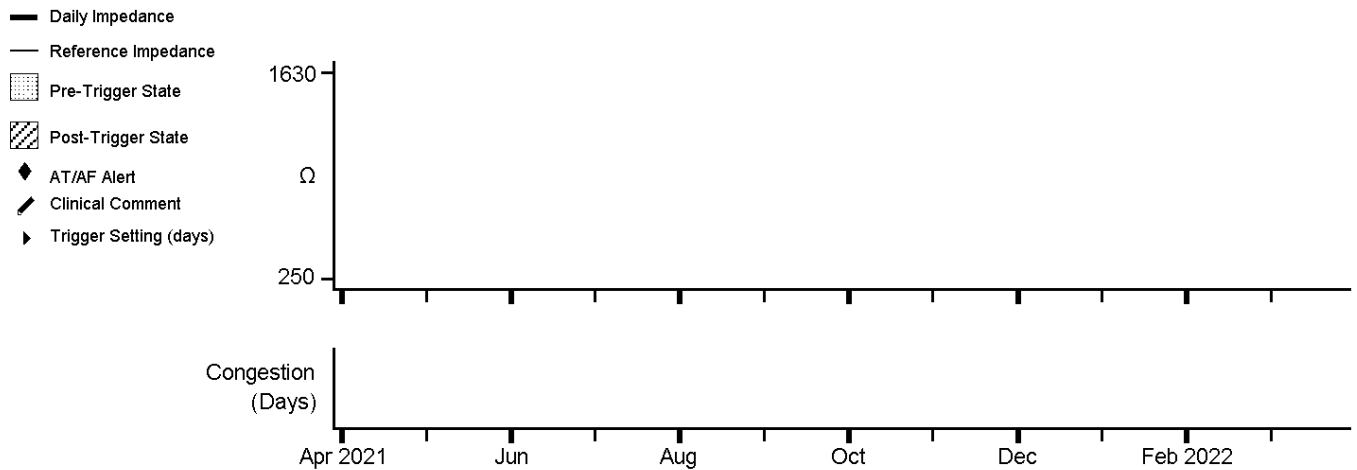
No Congestion Episodes recorded

## DirectTrend™ 1 Year Daily

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### CorVue™ Congestion Monitoring is OFF



CorVue™ Congestion Monitoring is an additional information source for patient management. It is not meant to replace clinical assessments that are part of standard clinical practice.

# Episode: Morphology Template Update

Other Episode 60 of 60

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29 Mar 2022 10:02

Mode

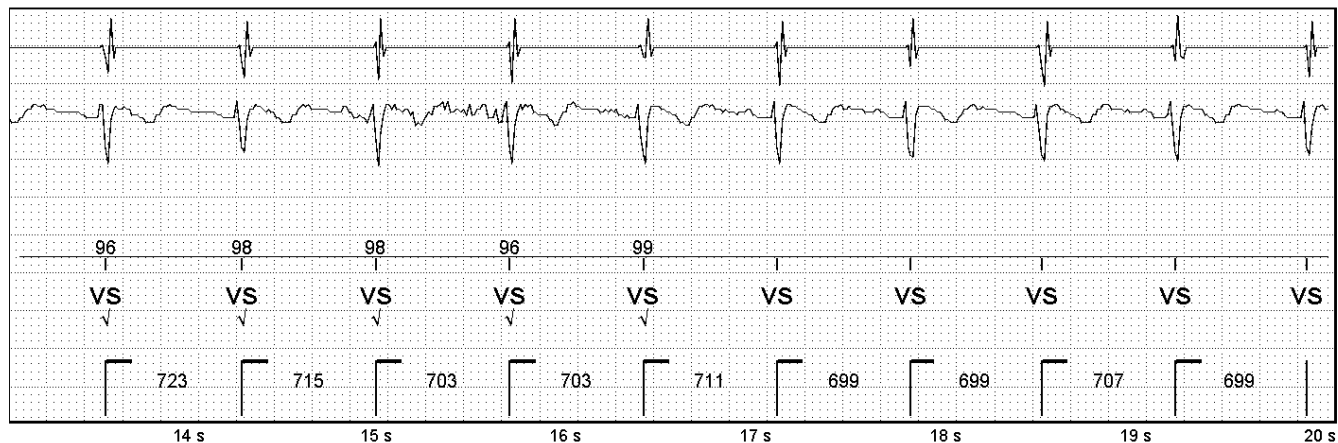
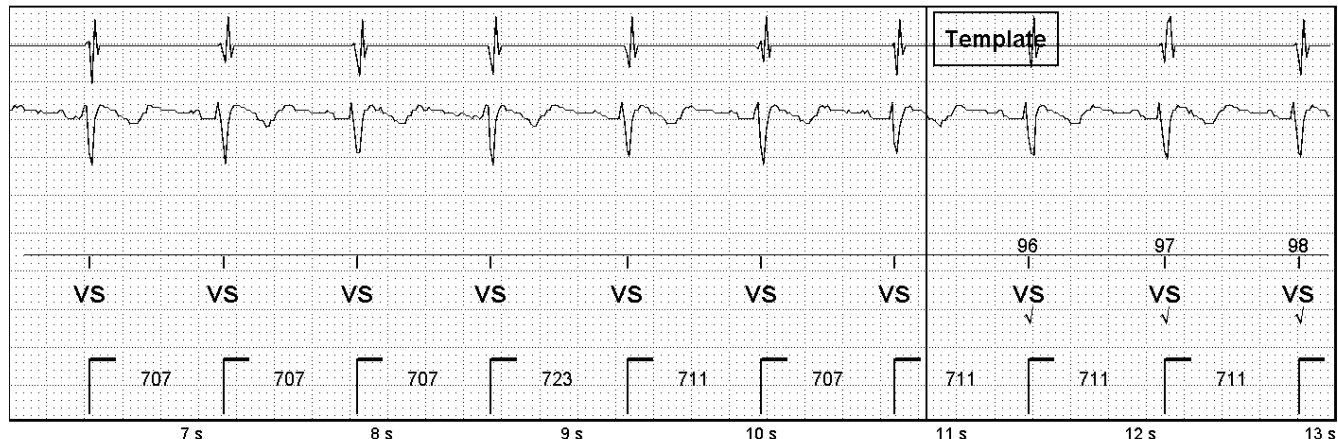
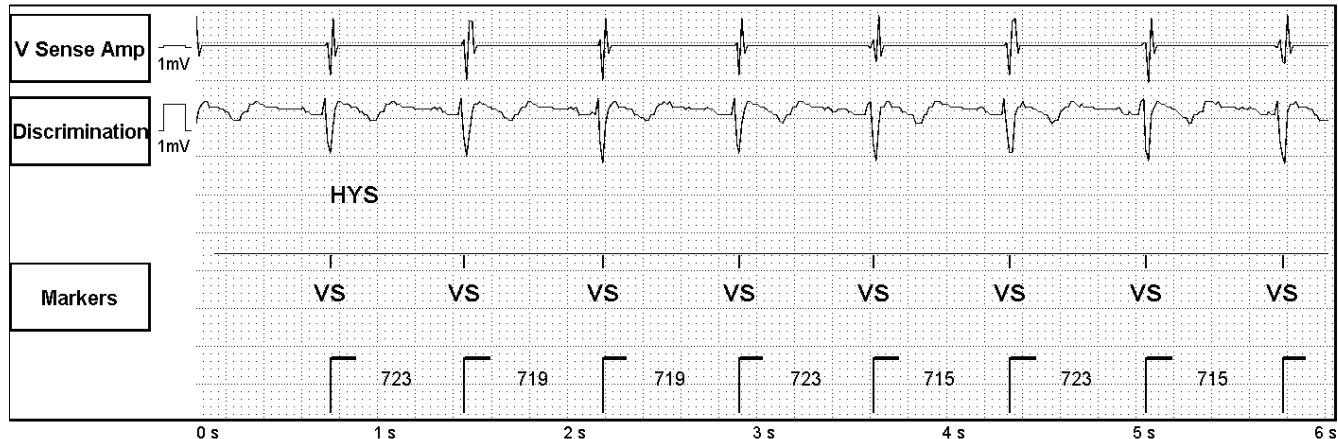
n/a

1: V Sense Amp AutoGain (0,6 mm/mV)

3: Markers

2: Discrimination AutoGain (3,7 mm/mV)

Sweep Speed: 25 mm/s



## Test Results: Ventricle

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### Ventricular Capture Test

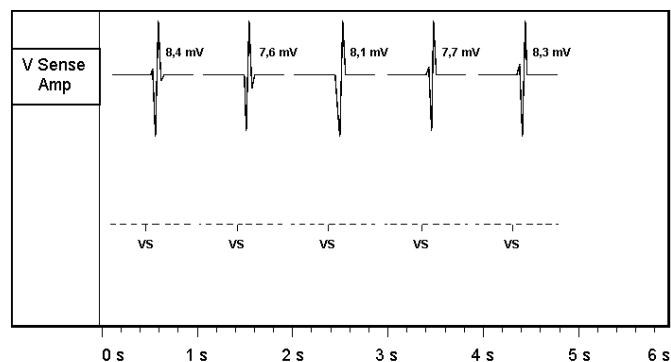
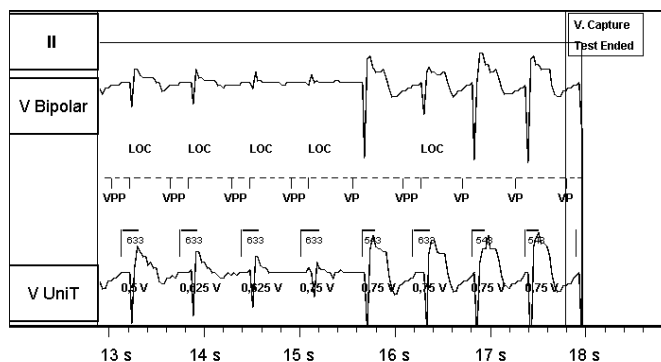
0,75 V @ 0,5 ms (Bi)  
0,625 V @ 0,5 ms (Bi)

29 Mar 2022  
17 Mar 2022

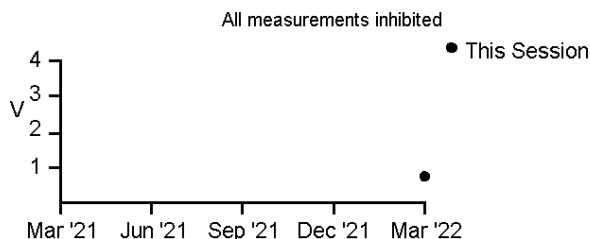
### Ventricular Sense Test

8,1 mV (7,6 - 8,4 mV) (Bi) **A**  
9,5 - 9,9 mV (Bi)

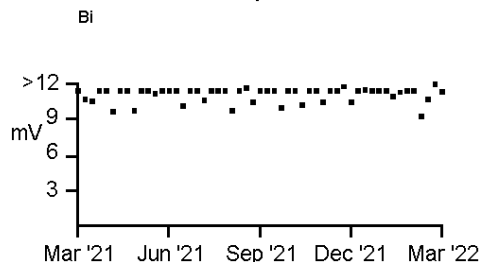
29 Mar 2022  
17 Mar 2022



### AutoCapture Trend



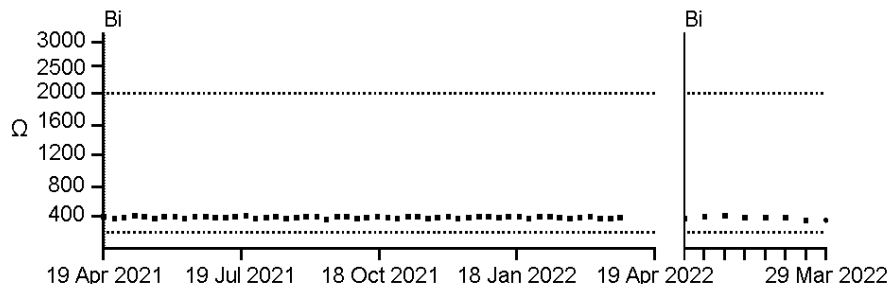
### Ventricular Sense Amplitude Trend



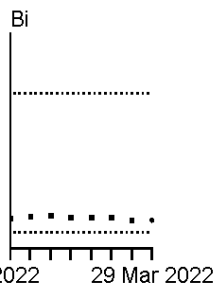
### Ventricular Lead Monitoring:

360  $\Omega$  (Bi) 29 Mar 2022

#### 1-year trend



#### Last 7 Days



Programmed Pulse Configuration  
V. Lead Monitoring Monitor

Lower Limit 200  $\Omega$   
Upper Limit 2.000  $\Omega$

#### Configurations

Bipolar

#### First Measurement

560  $\Omega$  (3 May 2019)

#### Lifetime Range

360 - 560  $\Omega$

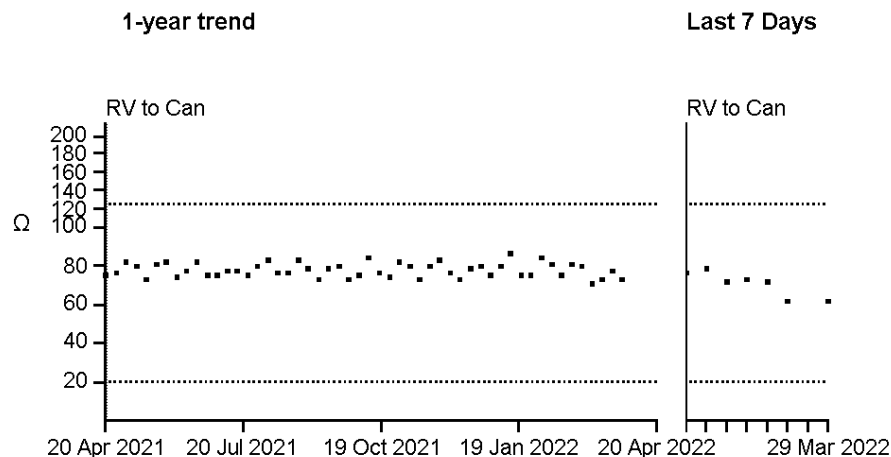


### Test Results: HV Lead Impedance and Battery

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**HV Lead Impedance:**

62 Ω (RV to Can) 29 Mar 2022



	RV to Can
First Measurement	74 $\Omega$ (3 May 2019)
Lifetime Range	50 - 96 $\Omega$

Programmed Shock Configuration	RV to Can
Lower Limit	20 $\Omega$
Upper Limit	125 $\Omega$

- RV to Can
- RV to SVC
- ▼ SVC to Can
- Therapies

## Battery Information

Longevity: 7,3 yrs



Last Max Charge

9,4 sec (28 Oct 2021)

Longevity estimate is based on patient history

Battery Current

13  $\mu\text{A}$ 

Remaining Capacity to ERI

78%

# Presenting Rhythm Freeze

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29 Mar 2022 13:02

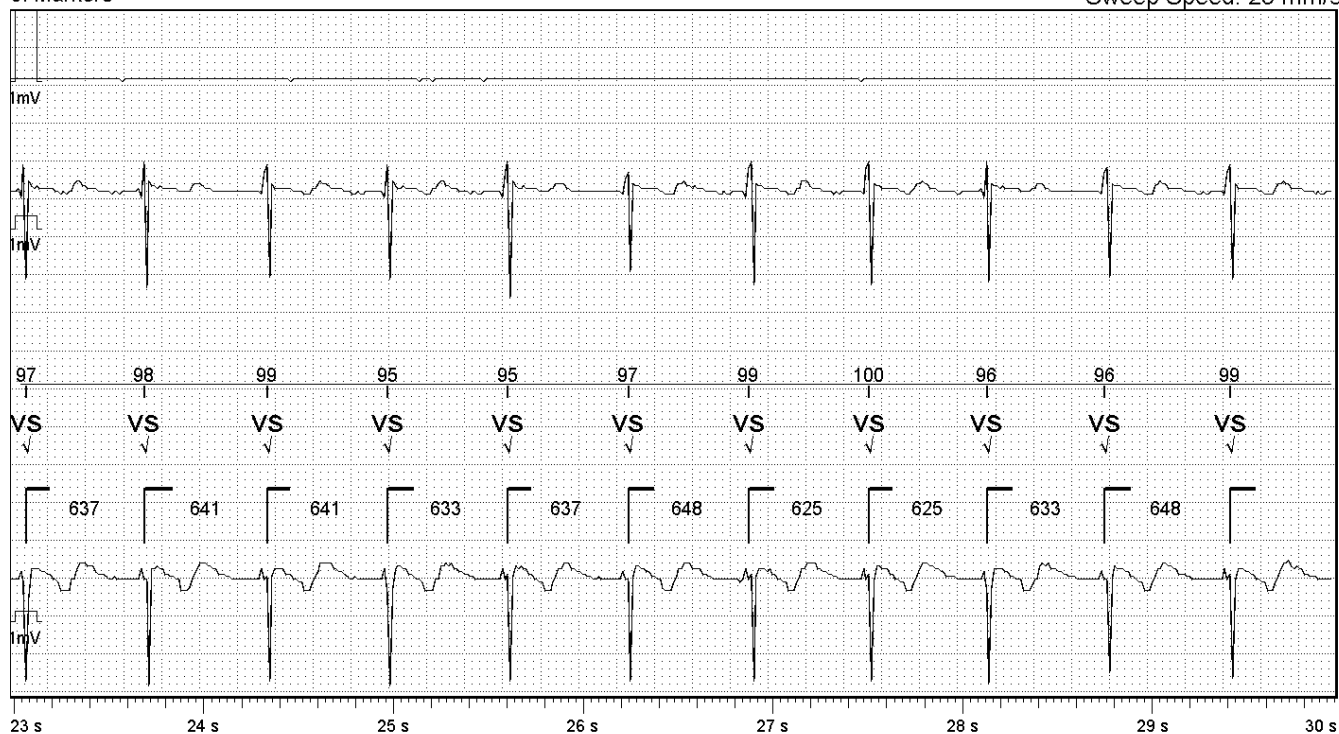
## Key Parameters

Mode	VVI
Base Rate	40 bpm
Rest Rate	Off
Max Sensor Rate	110 bpm
Hysteresis Rate	30 bpm
V. AutoCapture	On
Rate Responsive V Ref	Low

1: II AutoGain (100,0 mm/mV)  
 2: V Bipolar AutoGain (2,1 mm/mV)  
 3: Markers

4: V Unipolar Tip AutoGain (1,7 mm/mV)

Sweep Speed: 25 mm/s



# Parameters

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**Patient**

Date of Birth 14 Apr 1944  
EF % 35 %

**Indications for Implant**

Device	Manufacturer	Model	Serial	Implant Date
ICD	St. Jude Medical	Fortify Assura™ VR 1359-40QC	5473910	3 May 2019
V Lead	St. Jude Medical	Durata™ 7122Q / 65 cm	BPA102429	3 May 2019

**Basic Operation**

Mode VVI  
Magnet Response Normal  
V. Noise Reversion Mode Pacing Off  
Sensor Passive  
Threshold (Measured Avg.) Auto (+0.0) (2,0)  
Slope 8  
Max Sensor Rate 110 bpm  
Reaction Time Fast  
Recovery Time Medium

**Refractories & Blanking**

Rate Responsive V Ref Low  
Shortest V Ref 225 ms  
V Pace Refractory 250 ms  
V Sense Refractory 125 ms  
Arrhythmia Unhiding 3 intervals

**Rates**

Base Rate 40 bpm  
Rest Rate Off  
Max Sensor Rate 110 bpm  
Hysteresis Rate 30 bpm  
Search Interval Off  
Cycle Count 1 cycles

**Capture & Sense**

V  
AutoCapture On  
Backup Pulse Configuration Bipolar  
Search Interval 8 hours  
Pulse Amplitude 1,0 V **A**  
Pulse Width 0,5 ms  
AutoSense On  
Sensitivity Auto **A**
**Leads**

V  
Lead Type Bipolar  
Pulse Configuration Bipolar  
Sense Configuration Bipolar  
Lead Monitoring Monitor  
Lower Limit 200 Ω  
Upper Limit 2.000 Ω  
HVLI Lower Limit 20 Ω  
HVLI Upper Limit 125 Ω

Last Programmed: Today 13:03

Parameters that are "n/a" are not shown

Bold values were changed this session (See

Wrap-up™ Overview report for details)

▶ Manual-programmed

↳ Auto-programmed

**A** Automatic

## Parameters

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### ShockGuard™ Settings (Zone Configuration)

	VT	VF
Detection Criteria	171 bpm/350 ms 20 intervals	214 bpm/280 ms 12 intervals
SVT Discrimination	On	
Therapy	ATP x3 25,0 J/704 V 36,0 J/845 V 40,0 J/890 V x2	ATP x1 36,0 J/845 V 40,0 J/890 V 40,0 J/890 V x4
VT Therapy Timeout	120 sec	
Timeout Trigger	VT Therapy	

### SVT Discrimination

SVT Discrimination	Ventricular Only
SVT Discrimination Timeout	Off
SVT Upper Limit	Same as VF

Rate Branch	Additional Discriminators				Diagnosis
<b>VT Diagnosis Criteria</b>	<b>Morphology</b>	<b>Interval Stability</b>			Deliver therapy only if the active SVT Discrimination criteria indicate VT.
	Morphology	On	Interval Stability	Passive	
	Type	Far Field MD	Stability Delta	40 ms	
	Match	90 %, 3 of 10	SIH Count (passive)	2 intervals	
	Configuration	RV Coil-Can	Window Size	12 intervals	
	<b>Sudden Onset</b>				
	Sudden Onset	Passive			
	Onset Delta	100 ms			

### SecureSense™ Settings

SecureSense™	On
Far Field MD / SecureSense™ Configuration	RV Coil-Can
Timeout Until Therapy	Off
Trigger alert for Non-sustained V Oversensing (NSO)	5 episodes

# Parameters

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## ATP Details

ATP Pulse Amplitude 7,5 V  
ATP Pulse Width 1,0 ms

	VT		VF	
	Therapy 1	Therapy 2	Therapy 1	
ATP Type			ATP While Charging	
ATP Upper Rate Cutoff			250 bpm/240 ms	
Number of Bursts	3		1	
Number of Stimuli	8		8	
Add Stimuli per Burst	Off			
Burst Cycle Length	85 %		85 %	
Min. Burst Cycle Length	200 ms		170 ms	
Readaptive	Off			
Scanning	On (Dec)			
Scan Step	10 ms			
Ramp	Off		Off	

## SenseAbility™ Settings

	V	
	Pacemaker	Defib
Max Sensitivity	Same as Defib (0,5 mV @ 110 bpm)	0,5 mV (0,5 mV @ 110 bpm)
Low Frequency Attenuation		On
	Post-Sensed	Post-Paced
Decay Delay	60 ms	95 ms
Threshold Start	50 %	1,0 mV

## DeFT Response™ Settings (Shock Waveform)

Waveform	Biphasic	
Waveform Mode	Tilt	
Shock Configuration	RV to Can	
RV Polarity	Anode(+)	
DynamicTx™ Over-Current	Off	
Detection Algorithm		
	1st Phase	2nd Phase
VF Shocks (Defib)	65 %	65 %
VT Shocks (CVRT)	Same as Defib	Same as Defib
Estimated Defib Pulse Width	7,7 ms	
Estimated CVRT Pulse Width	7,7 ms	
Shock Impedance	62 Ω (Measured)	

Last Programmed: Today 13:03  
Parameters that are "n/a" are not shown

Bold values were changed this session (See  
Wrap-up™ Overview report for details)

▶ Manual-programmed **A** Automatic  
↳ Auto-programmed

# Parameters

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## Post-Shock Pacing

Mode	VVI
Base Rate	60 bpm
Pause	2 sec
Duration	0,5 min

## Redetection & Post-Detection

VT Redetection	6 intervals
Sinus Redetection	Nominal (5 intervals)
Post VF Detection	Same as VT
Post VT Detection	Same as VT

	<b>V</b>
Pulse Amplitude	7,5 V
Pulse Width	1,5 ms

	<b>Capacitor Maintenance</b>
Charge Interval	6 months

## MRI

MRI Mode	Pacing Off
HV Lead Type	Dual Coil

## Congestion Monitoring

Congestion Monitoring	Off
-----------------------	-----

## ST Monitoring Settings

Diagnostic	On			
	<b>Resting HR</b>	<b>Elev. 1 HR</b>	<b>Elev. 2 HR</b>	<b>Elev. 3 HR</b>
Heart Rate Range	40-86 bpm	87-104 bpm	105-122 bpm	123-140 bpm
Iso. Interval Start	160 ms	130 ms	124 ms	118 ms
Iso. Interval Duration	60 ms	48 ms	48 ms	42 ms
ST Interval Start	78 ms	66 ms	60 ms	60 ms
ST Interval Duration	60 ms	48 ms	42 ms	42 ms
Positive Threshold	10 % R Peak	8 % R Peak	8 % R Peak	8 % R Peak
Negative Threshold	18 % R Peak	20 % R Peak	20 % R Peak	20 % R Peak

## Trigger Alerts When


	Show on FastPath™	Notify Patient
V Lead Impedance Out of Range (200 - 2.000 Ω)	On	On
Therapy inhibits due to V lead noise	On	On
5 episodes of Non-sustained V Oversensing detected	On	Off
HV Lead Impedance Out of Range (20 - 125 Ω)	On	On
Percent V Pacing Alert (>40% over 7 days)	On	Off
ST Episode Alert	On	Off
ST Suggested Thresholds Available Alert	On	
Device at ERI	On	On
Charge Time Limit Reached (32 sec)	On	On
Possible HV Circuit Damage	On	On
Device Parameter Reset	On	On
Backup VVI	On	On

## Patient Notifier Delivery

Vibration Duration	6 sec
Number of Notifications	4
Time Between Notifications	10 hours

Last Programmed: Today 13:03  
Parameters that are "n/a" are not shown

Bold values were changed this session (See  
Wrap-up™ Overview report for details)

▶ Manual-programmed  Automatic  
↳ Auto-programmed



## Parameters

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### Episode Triggers

VT (Detection)	High
VF (Detection)	High
Non-sustained V Oversensing	High
Non-sustained VT/VF	Low
Noise Reversion	Off
Magnet Response	Low
Morphology Template Update	Low

### Stored EGM Configuration

VT/VF EGM Max Duration	1 min
VT/VF Pre-Trigger Max Duration	14 sec
Channels (Storage)	1 (45 min)
Channel 1	V Sense Amp

# Wrap-up™ Overview

 **1 Alert**

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**Patient**

 Date of Birth 14 Apr 1944  
 EF % 35 %

**Indications for Implant**
**Device**

 ICD  
 V Lead

**Manufacturer**

 St. Jude Medical  
 St. Jude Medical

**Model**

 Fortify Assura™ VR 1359-40QC  
 Durata™ 7122Q / 65 cm

**Serial**

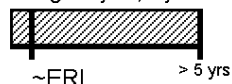
 5473910  
 BPA102429

**Implant Date**

 3 May 2019  
 3 May 2019

**Battery**

Longevity: 7,3 yrs



Last Max Charge

9,4 sec (28 Oct 2021)

Longevity estimate is based on patient history


Battery Current

13 uA

Remaining Capacity to ERI


78%


**Test Results** 29 Mar 2022

 Automatic


**Capture**
**Sense**
**Lead Impedance**

V 0,75V @ 0,5ms (Bi)

 8,1mV (Bi) 

 360 Ω (Bi) 

HV

 62 Ω (RV to Can) 
**Parameters**

		Zone Configuration	VT	VF
Mode	VVI	Detection Criteria	171 bpm	214 bpm
Base Rate	40 bpm	Therapy (ENABLED)	ATP x3	ATP x1
			25,0 J	36,0 J
			36,0 J	40,0 J
			40,0 J x2	40,0 J x4

**Programming Changes**

No changes this session

**Alerts**


Updated ST Suggested Thresholds available for programming