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LUX-Dx™ ICM Systems*
Case Collection

Focused on what matters.

Results from case studies are not necessarily predictive of results in other cases. Results in other cases may vary.
*References to "LUX-Dx ICMs" includes LUX-Dx™, LUX-Dx II™ and LUX-Dx II+™ ICM Systems.

Case Collection. Featured cases are from real LUX-Dx™ ICM Patients.

The LUX-Dx II+™ ICM System builds upon the advanced dual-stage algorithms and unparalleled signal quality of the groundbreaking LUX-Dx™ ICM device. The S-ECG signal quality, designed to emulate Lead II, puts the power of astoundingly clear signals in your hands from day one.

You can view the full report by clicking "View Report."

Event Report	Patient Monitored for:	Description of Event Report	View Report
Atrial Fibrillation	AF Management	**AF with conversion pause** • Atrial fibrillation of 20-minute duration with an average ventricular rate of 86 bpm. • A conversion pause at 1283 seconds (report page 6) with return to normal sinus rhythm. • The rate plot clearly demonstrates the change from AF to NSR.	View Report
	Syncope	**AF caused by an aberrantly conducted PAC** • Atrial Fibrillation of 44-minute duration with an average ventricular rate of 112 bpm. • Occasional PACs noted throughout the rhythm. • Atrial beat hidden in the T-Wave at 212 seconds (report page 2). • Short run of Atrial Tachycardia at 2781 seconds (report page 8).	View Report
	AF Management	**Two AF episodes showing atrial flutter with conversions to normal sinus rhythm** • Atrial flutter of 34-minute duration with an average ventricular rate of 86 bpm. • The conversion to NSR is visible at 2138 seconds (report page 7).	View Report
Pause	Syncope	**High degree AV block detected** • At 7:04AM, a 3.7 second pause was detected. • P-waves can be seen during AV block prior to the pause. • P-waves are visible during the 3.7 second pause (report page 2).	View Report
	Cryptogenic Stroke	**4.8 second pause supported by the rate plot** • At 5:34AM, a 4.8 second pause was detected. • In the rate plot, a heart rate drop is visible prior to and after the pause supporting a true pause.	View Report
	Syncope	**8.8 second pause** • At 5:00AM, an 8.8 second pause was detected. • The beginning of the pause can be seen at 27 seconds (page 2).	View Report
Tachycardia	Ventricular Tachycardia	**PVC induced non-sustained VT and return to normal sinus rhythm** • Monomorphic VT episode lasting 11 seconds (32 beats) with an average ventricular rate of 192 bpm, max V rate of 203 bpm. • Occasional PVCs noted throughout the event.	View Report
	Syncope	**SVT Event** • SVT episode lasting 6 minutes and 48 seconds with an average ventricular rate of 160 bpm, max V rate of 188 bpm.	View Report
	AF Management	**SVT episode and return to normal sinus rhythm** • SVT episode lasting 14 seconds with an average ventricular rate of 160 bpm, max V rate of 169 bpm.	View Report
Atrial Tachycardia	Suspected AF	**Sustained AT with regular V to V rhythm and consistent rate** • Atrial rate of 155 bpm during the 10 hour 16 minute AT episode.	View Report
Bradycardia	Cryptogenic Stroke	**P-waves during brady event** • At 11:34AM, bradycardia event with an average rate of 40 bpm over the 12 second duration of the event.	View Report
	Cryptogenic Stroke	**2:1 HB during brady event** • At 9:11PM, bradycardia event with an average rate of 37 bpm over the 5 second duration of the event. • Clinic entered "2:1 HB" in the notes section. • R-waves are clipped as the S-ECG is zoomed to see p-waves.	View Report
Follow-Up	Cryptogenic Stroke	**Presenting strip with P-waves**	View Report
	Cryptogenic Stroke	**P-waves in presenting strip for a patient with runs of AF** • Visible P-waves in the presenting S-ECG could make adjudicating the AF events easier	View Report

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ATRIAL FIBRILLATION EVENT REPORT

PATIENT MONITORED FOR:

AF Management

DETAILS:

AF with conversion pause

- Atrial fibrillation of 20-minute duration with an average ventricular rate of 86 bpm.
- A conversion pause at 1283 seconds (report page 6) with return to normal sinus rhythm.
- The rate plot clearly demonstrates the change from AF to NSR.
- AF settings were programmed to nominal.
- The first 3 minutes of this report shows the dashed line though the S-ECG as only the intervals are store per the storage guidelines above.
    - For S-ECG storage of an AF episode that's ≥2 minutes: Each AF event contains 3 minutes of intervals before the start, 1 minute of annotated S-ECG data after the start, and up to 3 minutes of annotated S-ECG at the end.

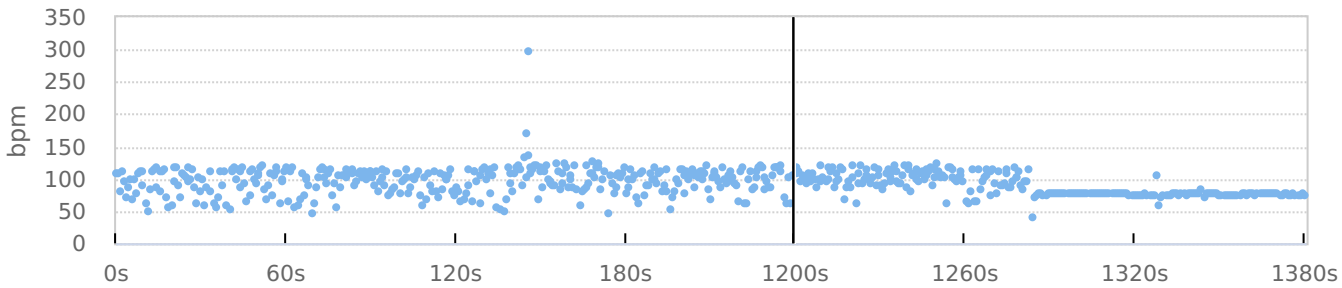
HOME

Reason For Monitoring
AF Management

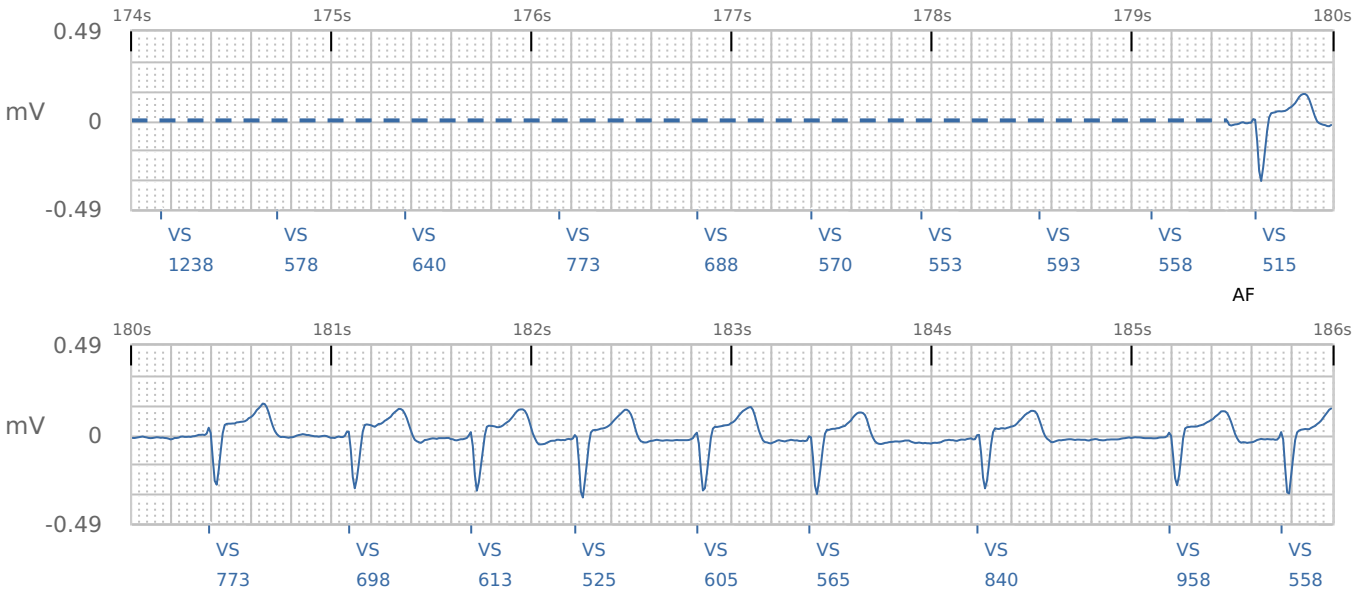
Clinical Context:
None

Event	Description	Date/Time	Duration	Rate	Assessment
AF-97	AF	Nov 11, 2020 03:18 EST	20 m 00 s	Avg 96 bpm Max 126 bpm	Appropriate

AF Settings
Response Balanced
Duration 10 min
Morphology Assessment On



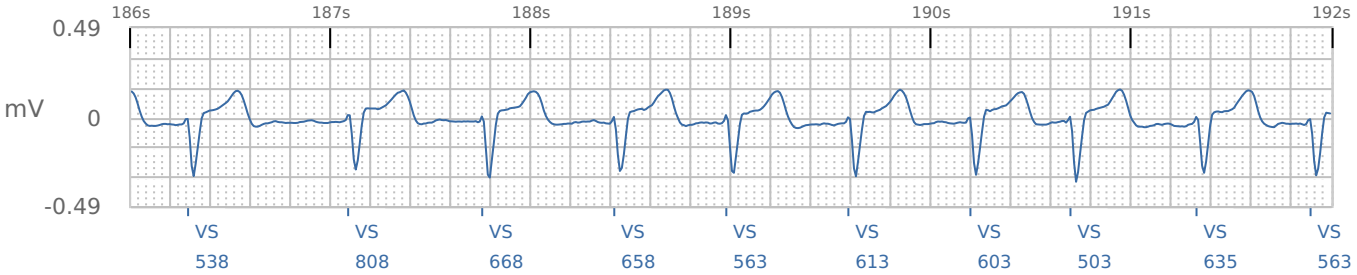
S-ECG displayed at 25mm per second

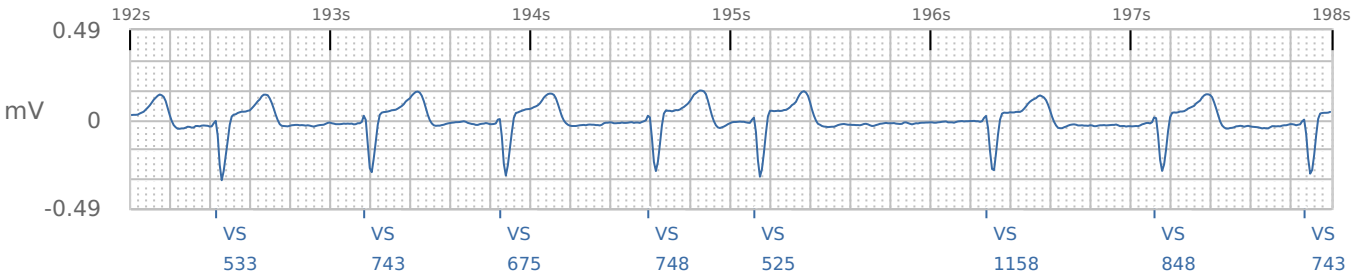


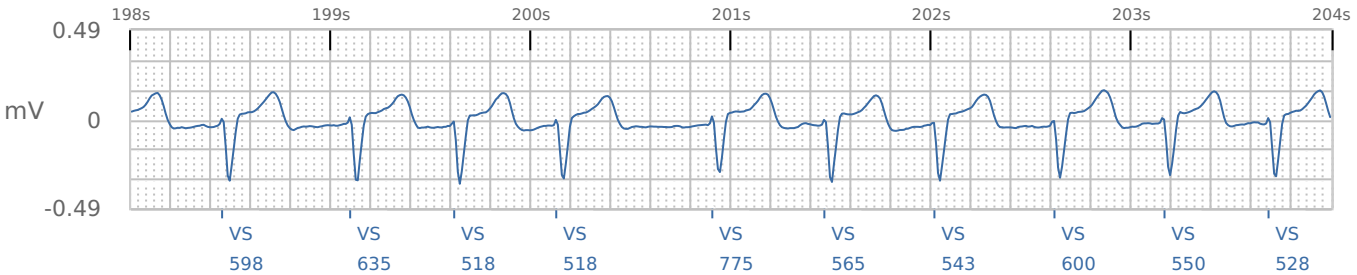
Comments & Interventions

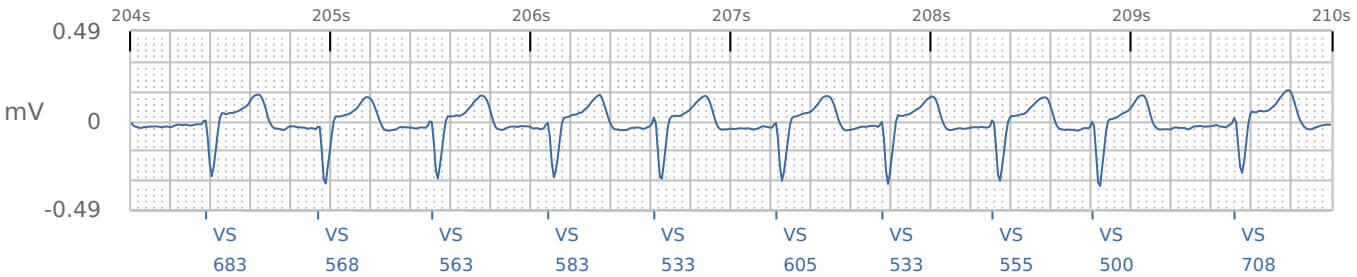
Signature

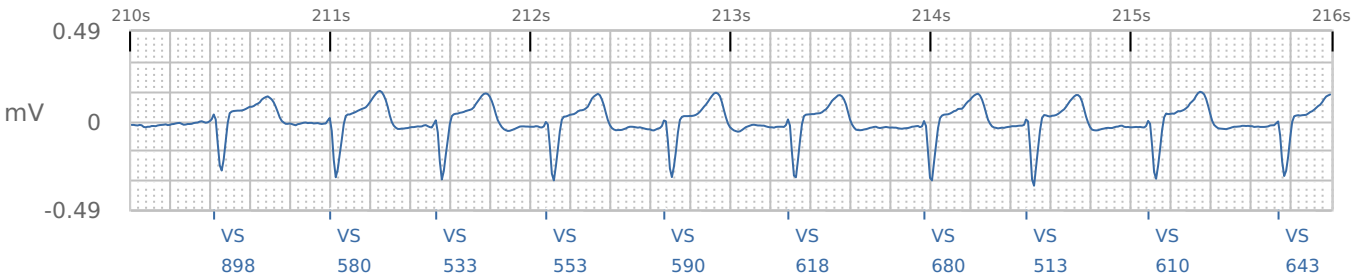
Date

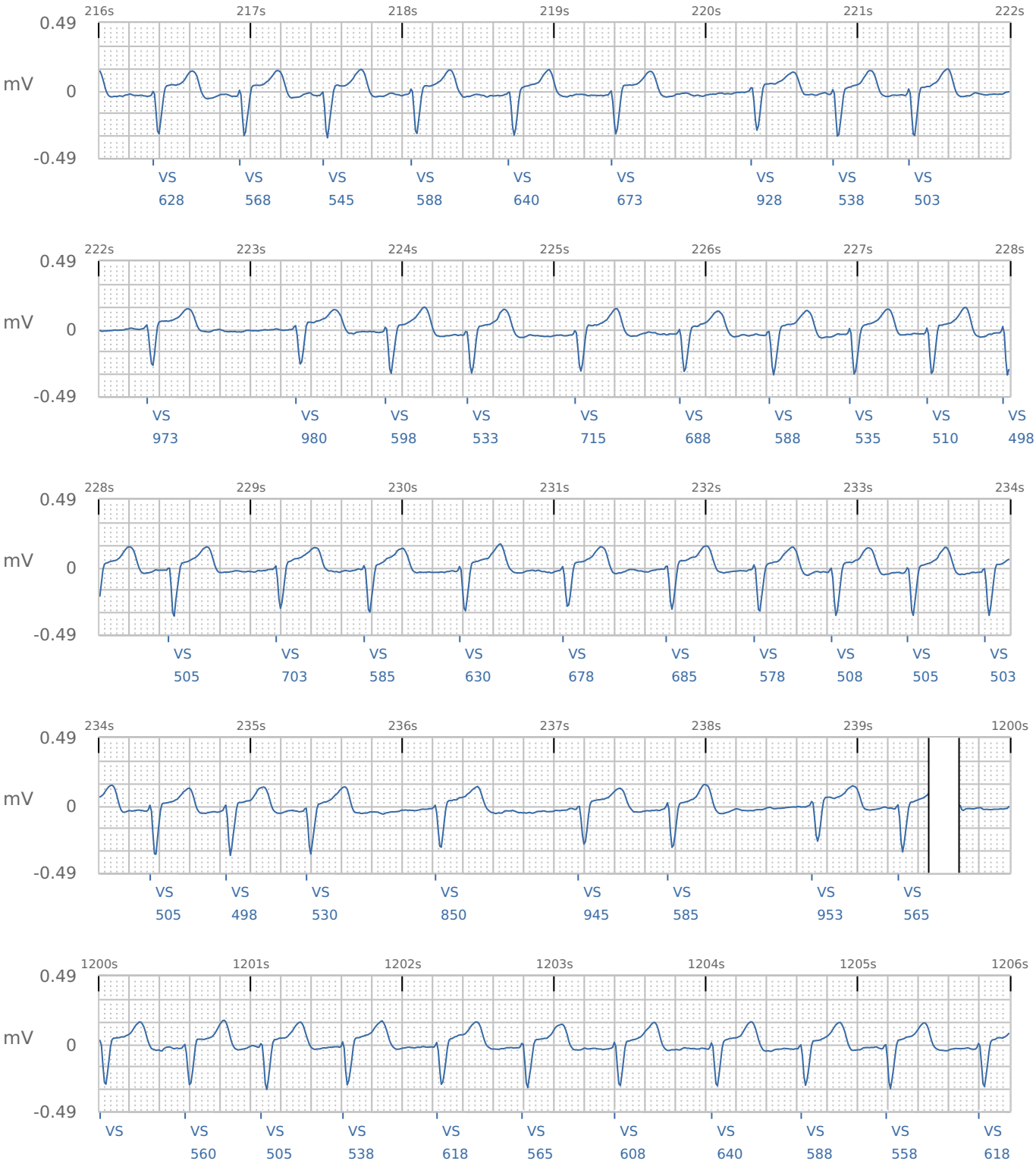


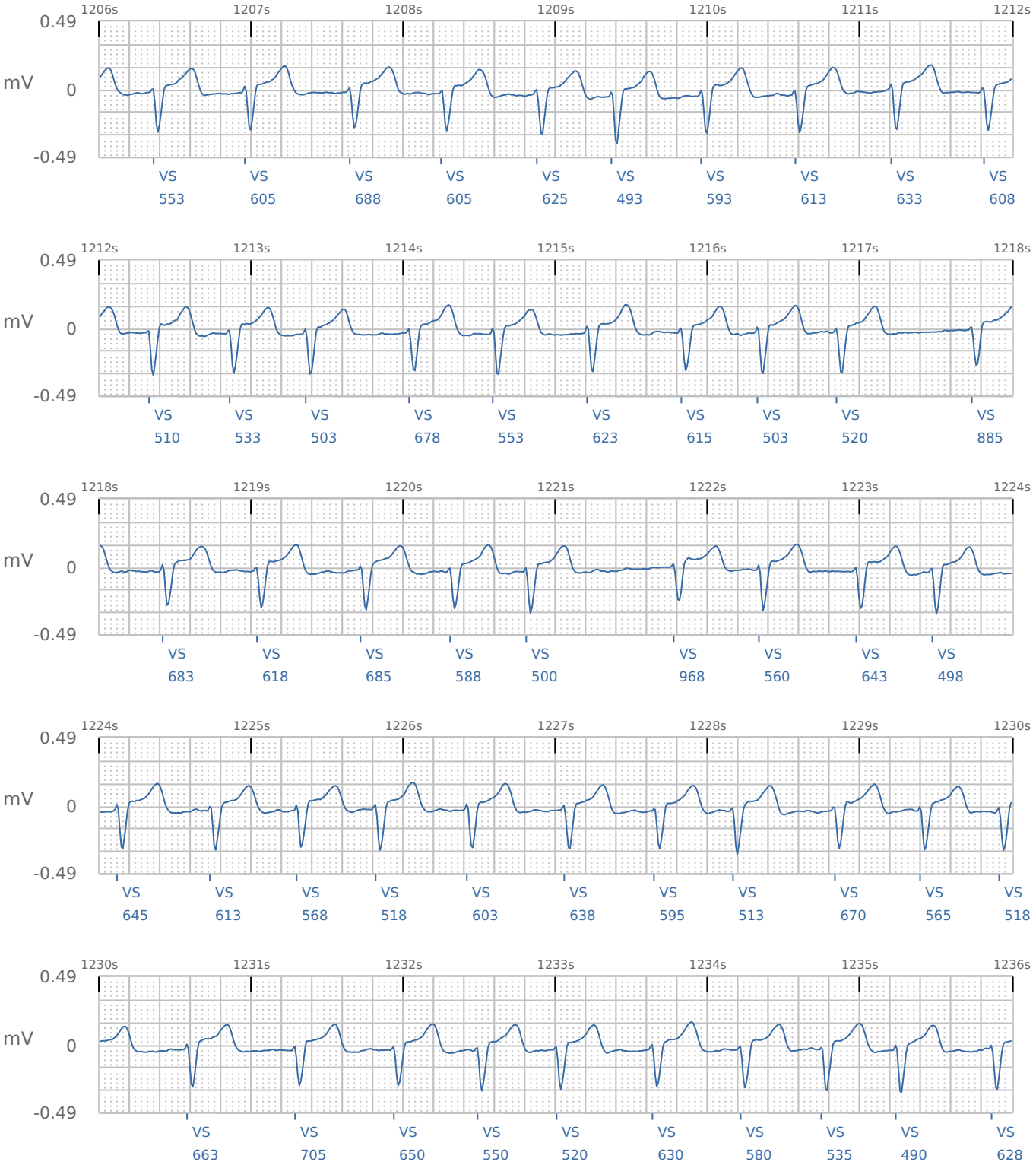


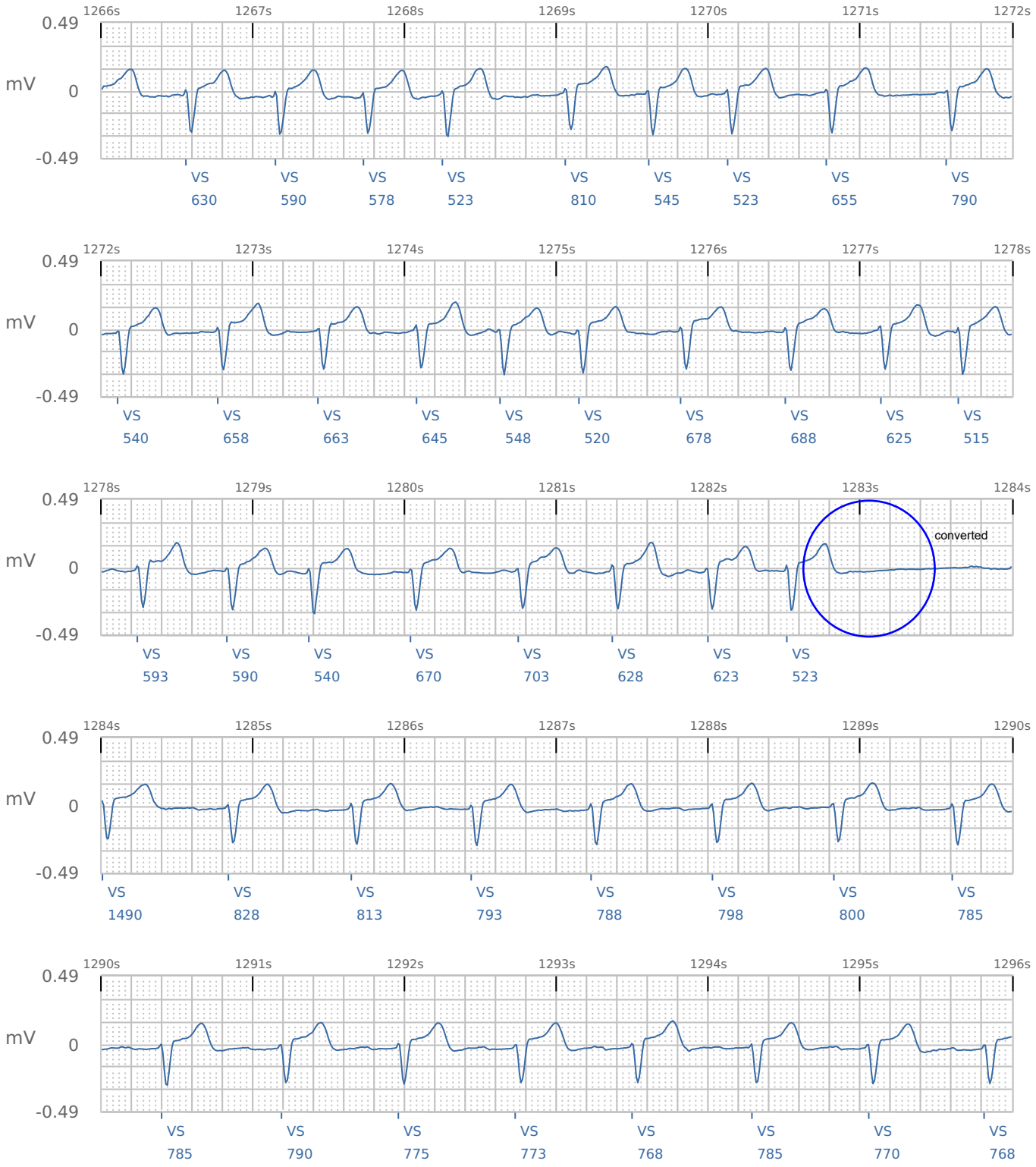


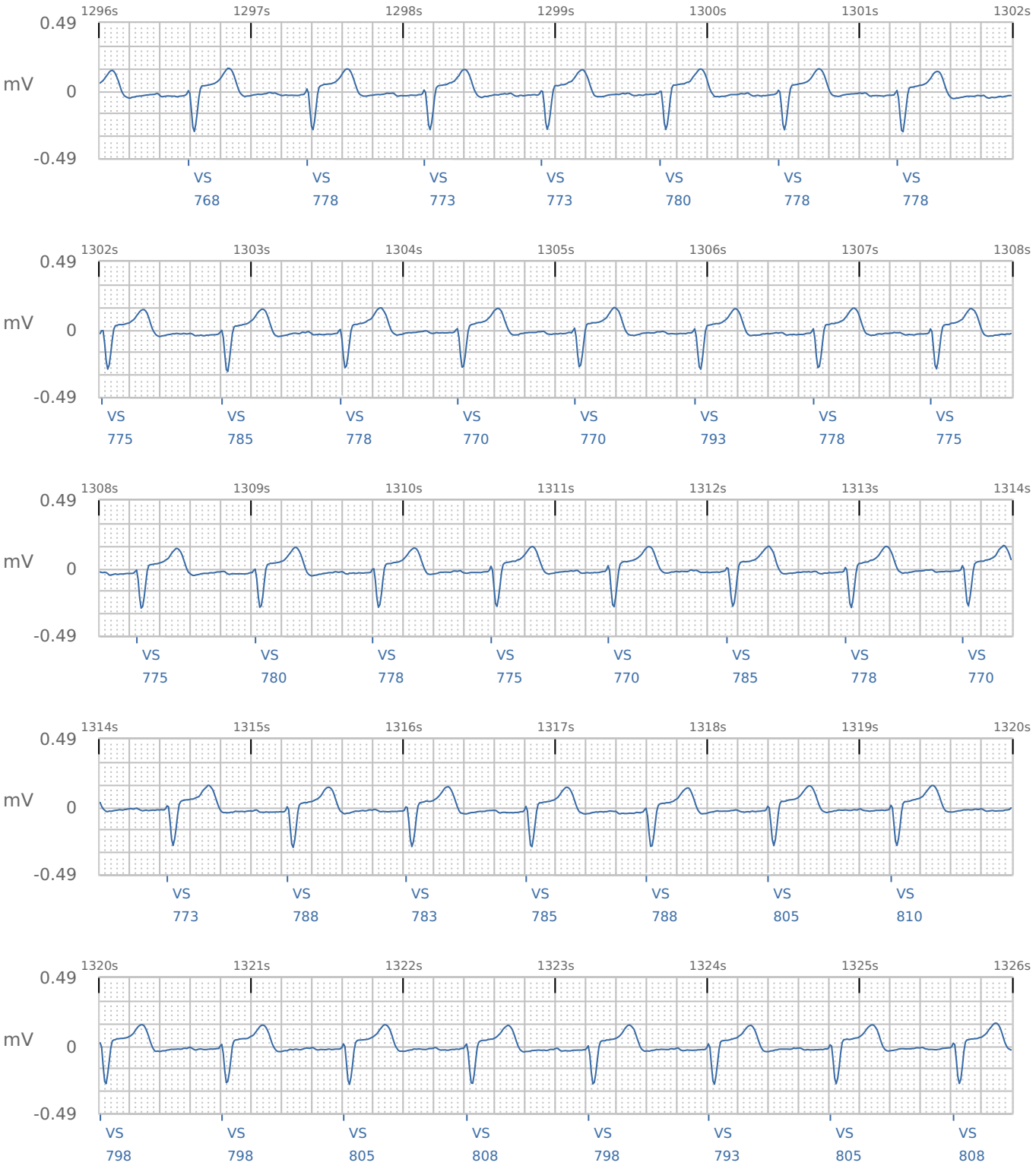


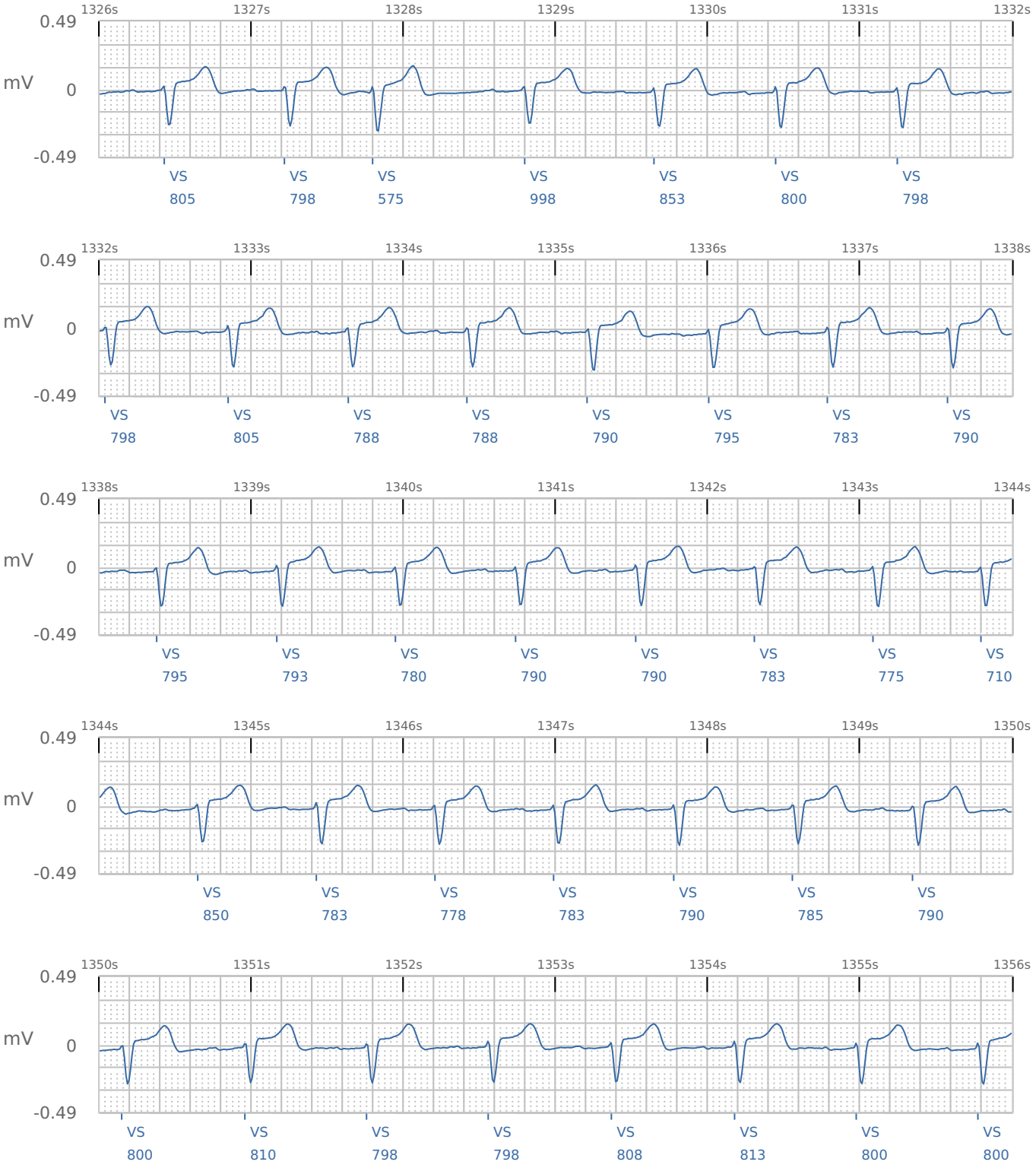


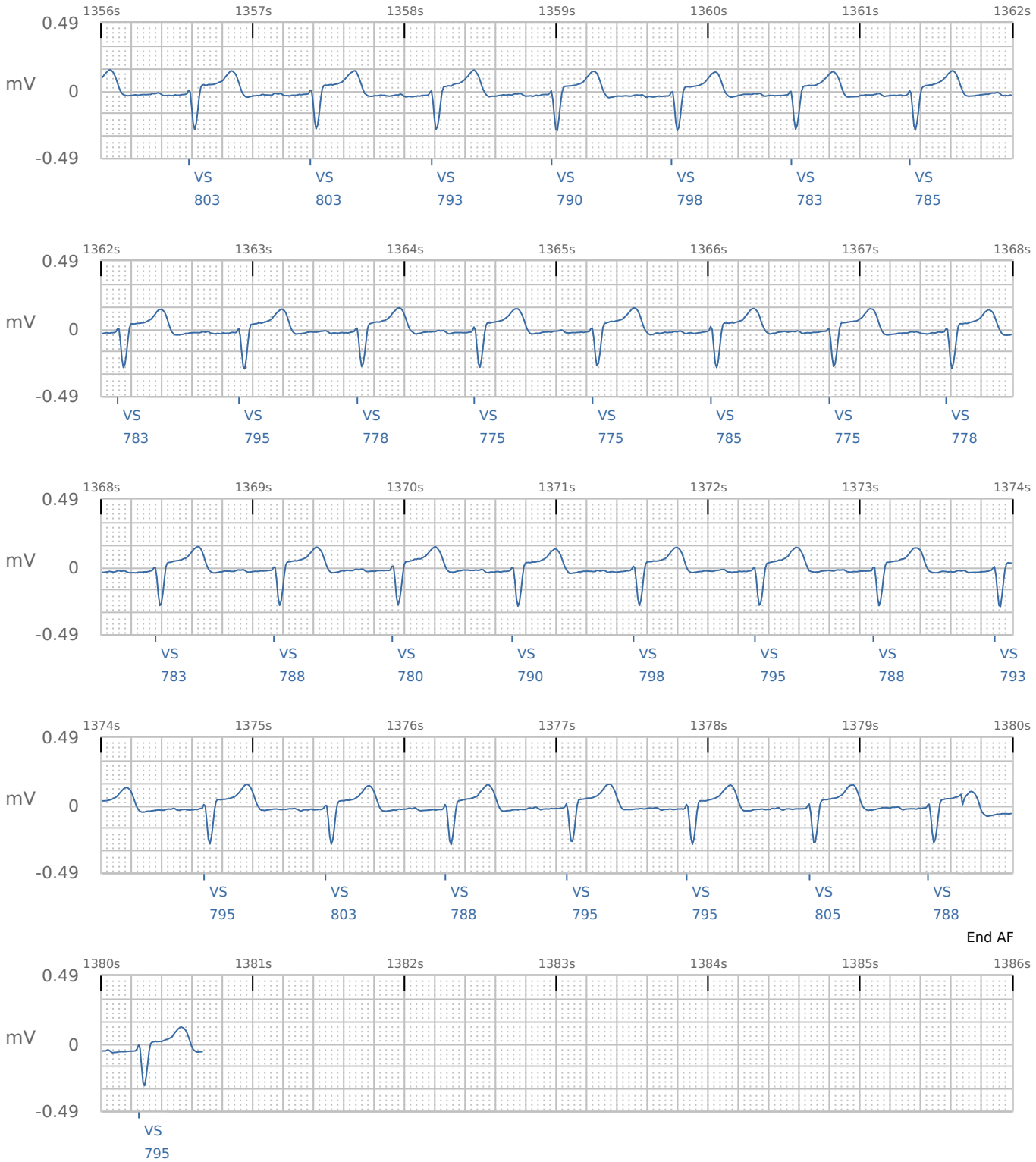












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ATRIAL FIBRILLATION EVENT REPORT

PATIENT MONITORED FOR:

Syncope

DETAILS:

AF caused by an aberrantly conducted PAC

- Atrial Fibrillation of 44-minute duration with an average ventricular rate of 112 bpm.
- Occasional PACs noted throughout the rhythm.
- Atrial beat hidden in the T-Wave at 212 seconds (report page 2).
- Short run of Atrial Tachycardia at 2781 seconds (report page 8).
- AF settings were programmed to nominal.

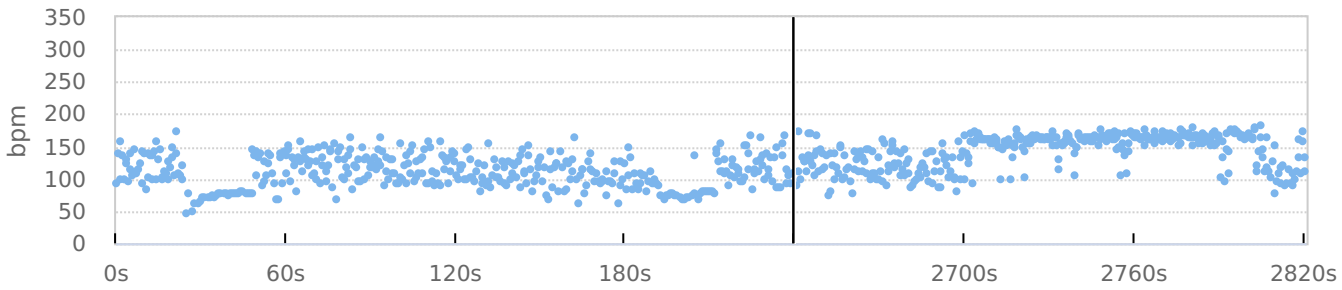
HOME

Reason For Monitoring
Syncope

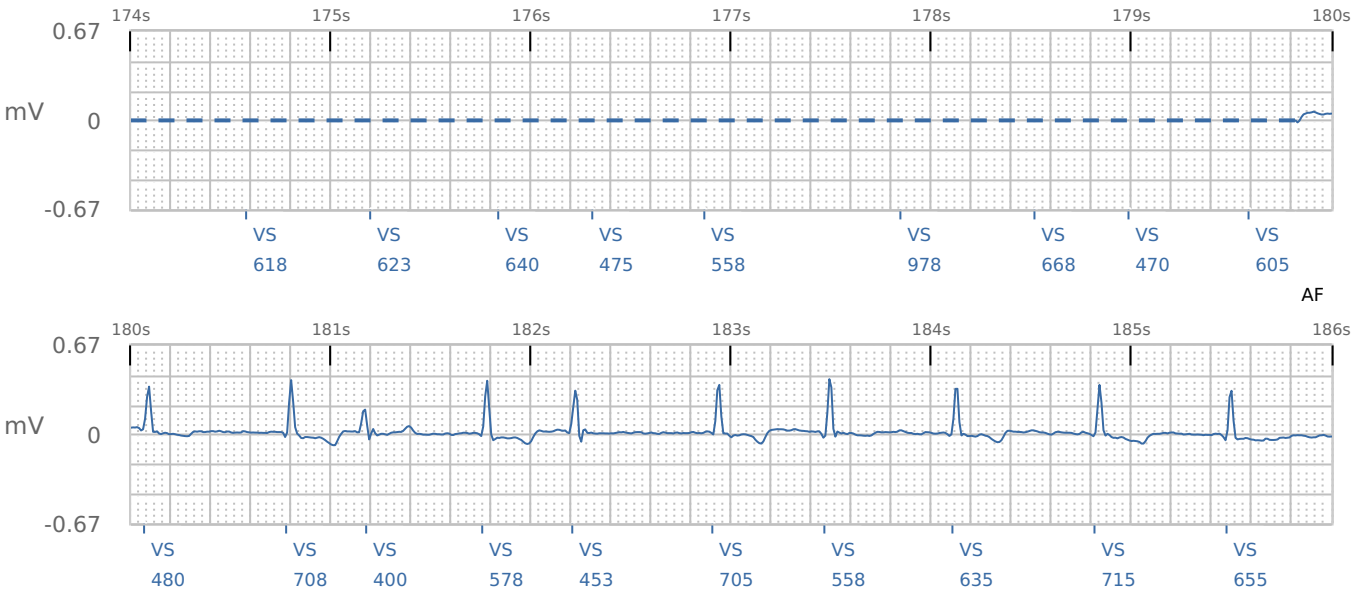
Clinical Context:
None

Event	Description	Date/Time	Duration	Rate	Assessment
AF-4	AF	Nov 27, 2020 11:04 EST	44 m 00 s	Avg 112 bpm Max 172 bpm	Not Assessed

AF Settings
Response Less
Duration 10 min
Morphology Assessment On



S-ECG displayed at 25mm per second

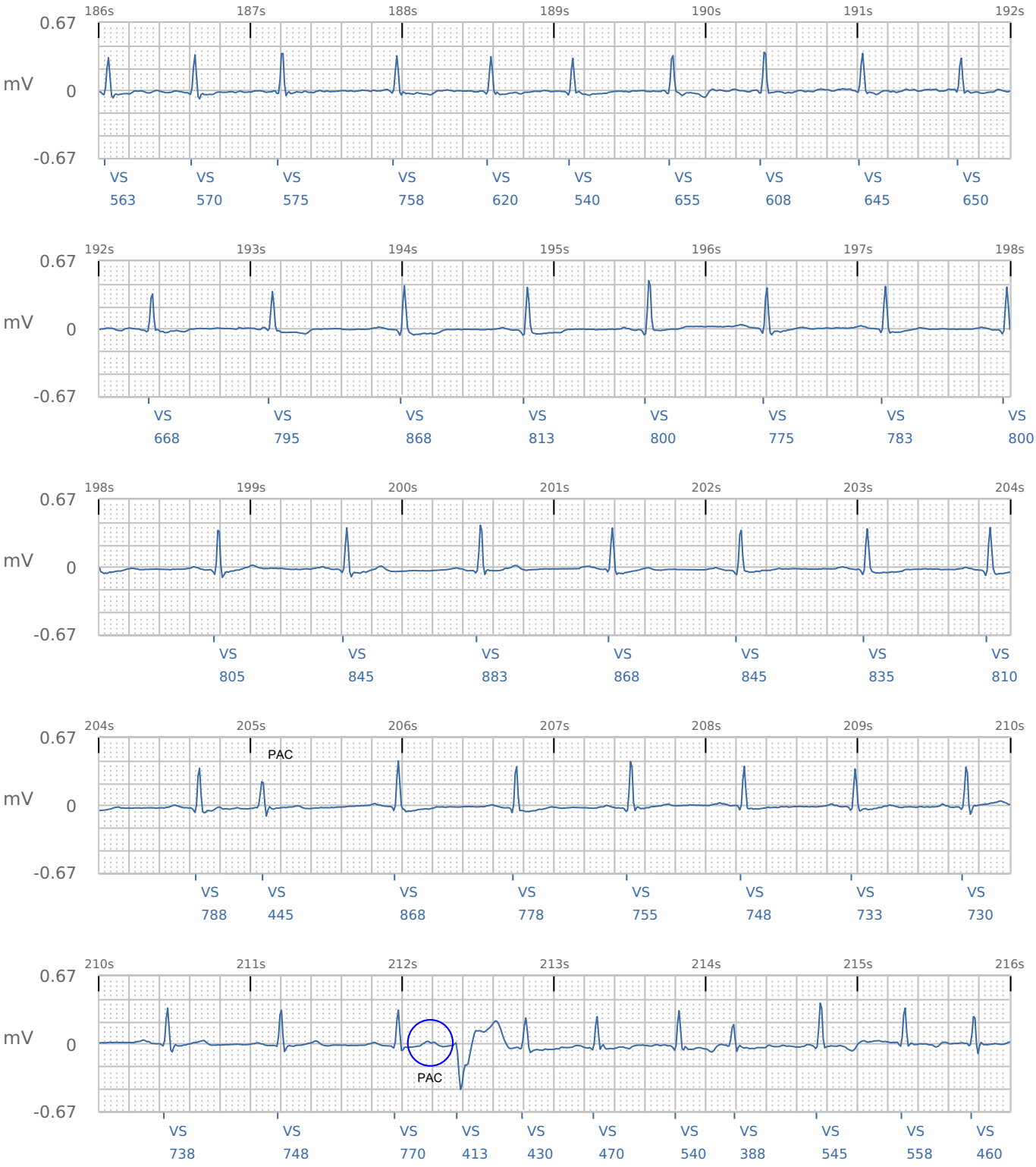


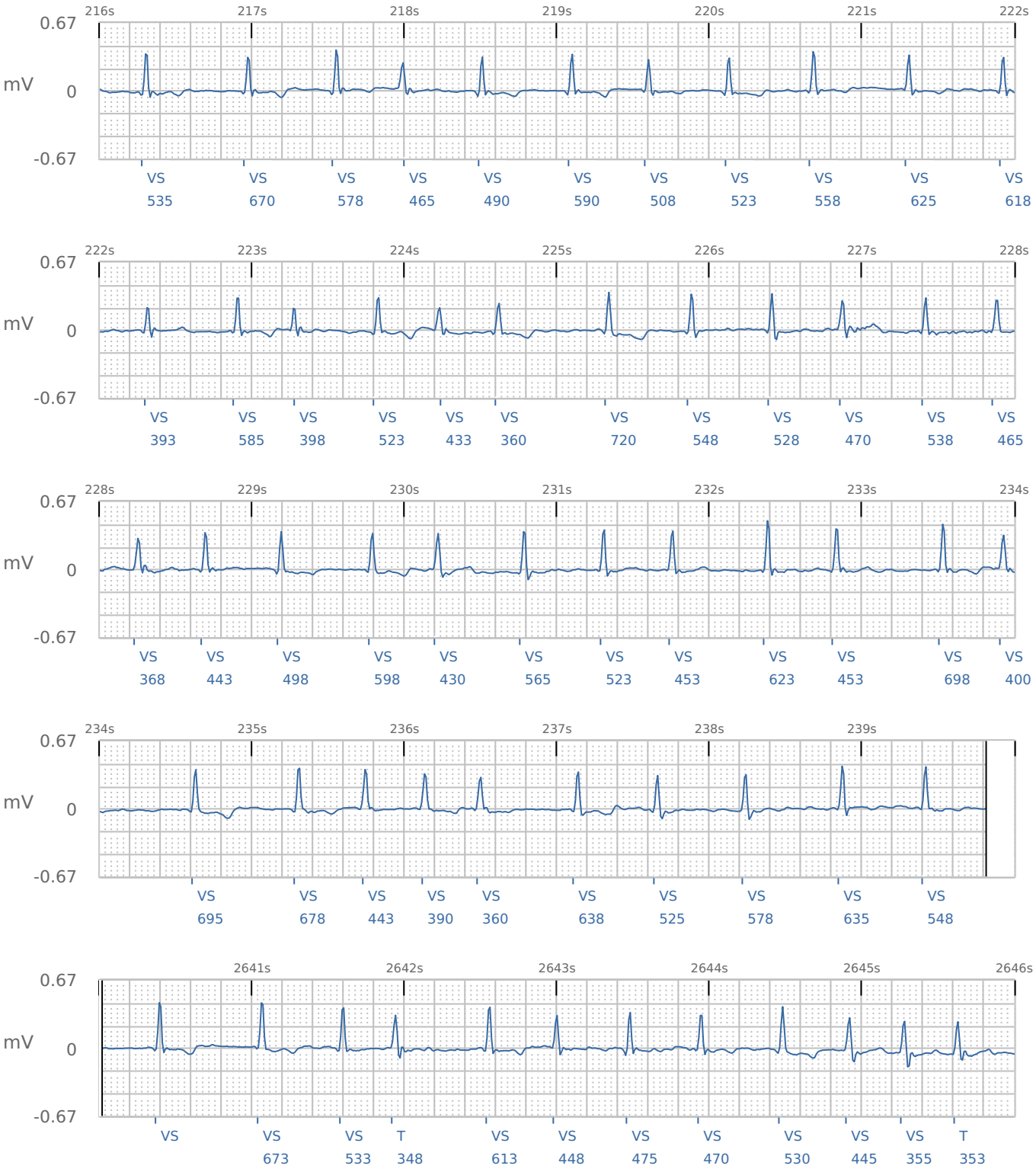
Comments & Interventions

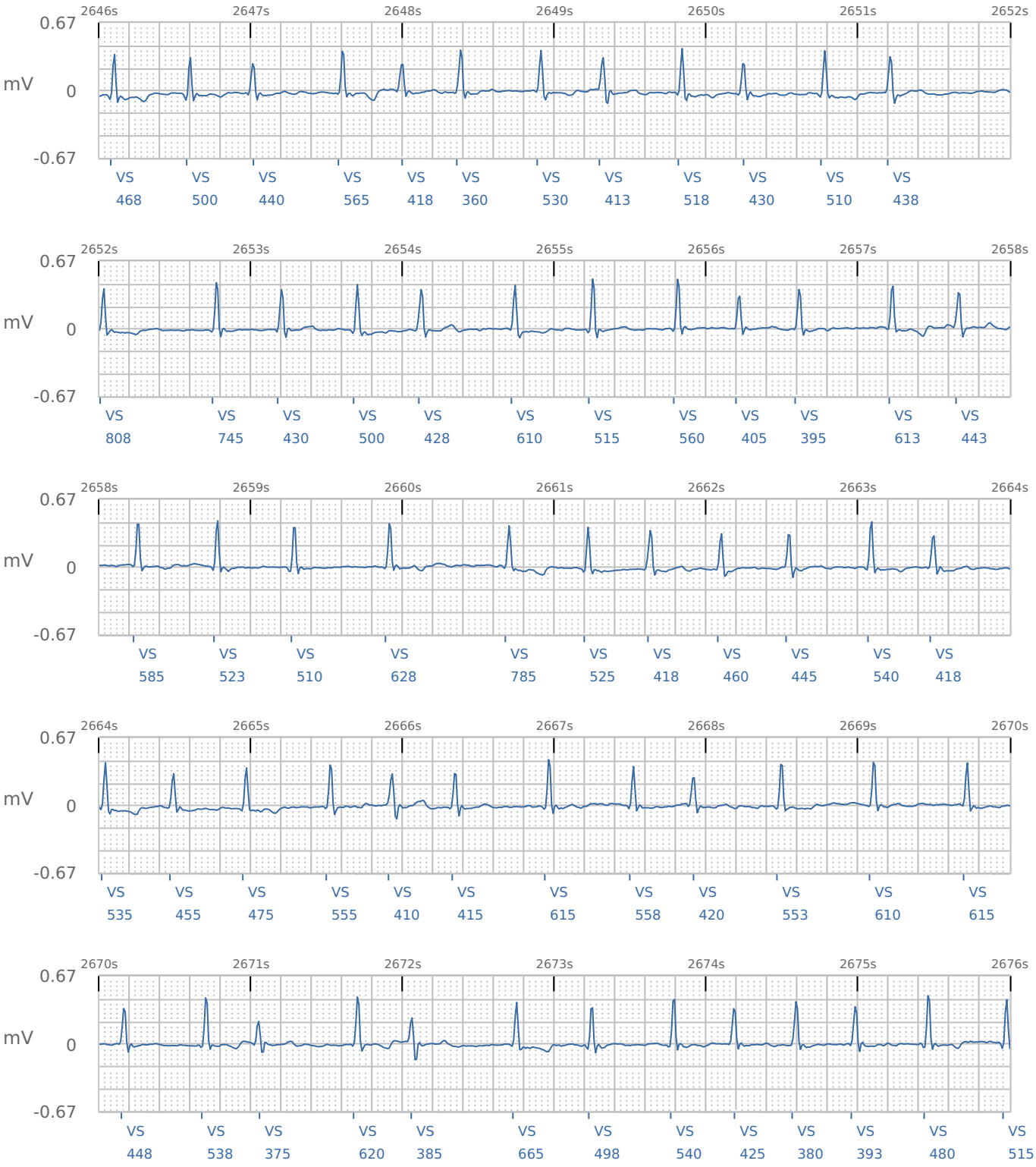
Signature

Date

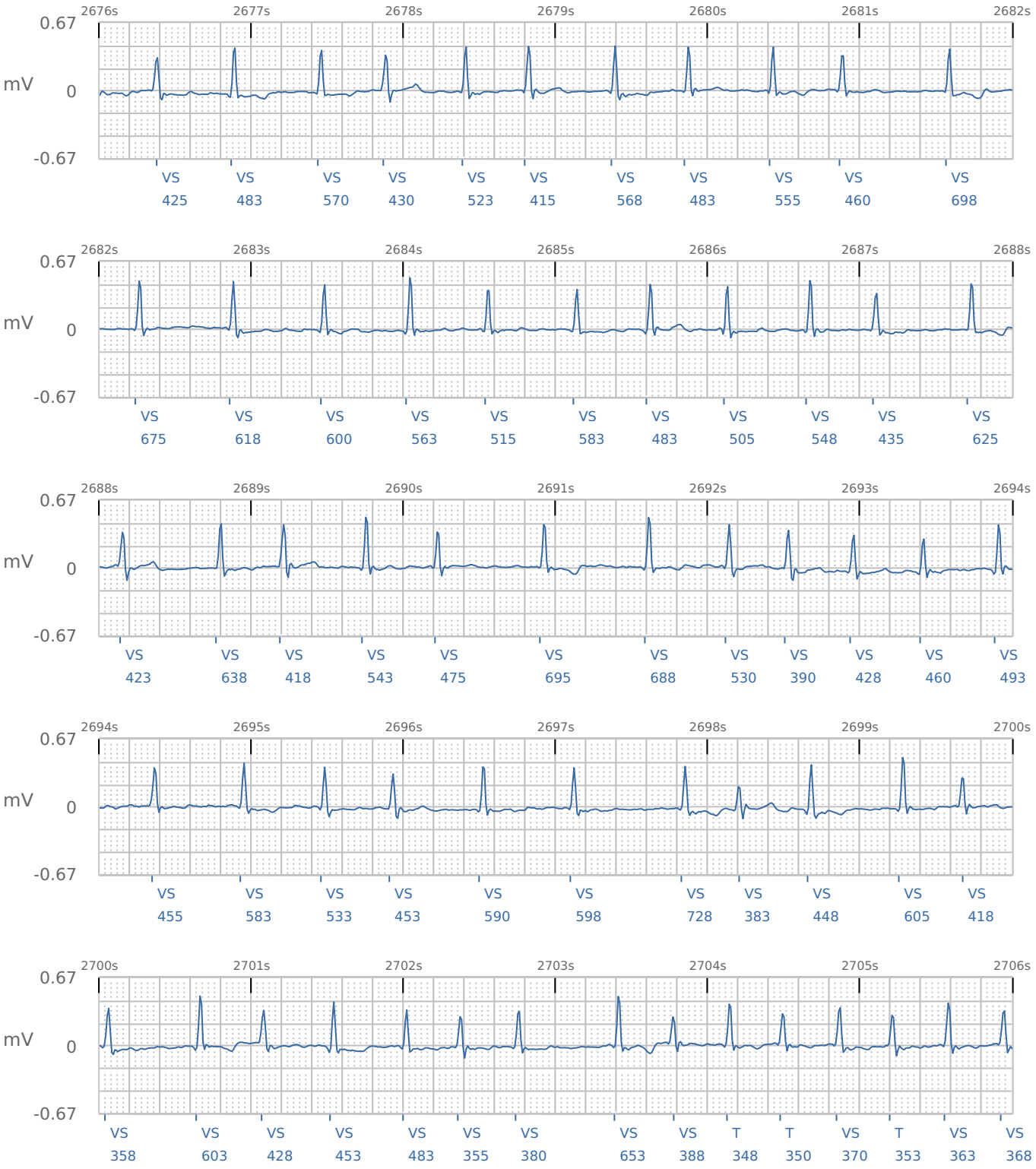
Monitoring: Syncope

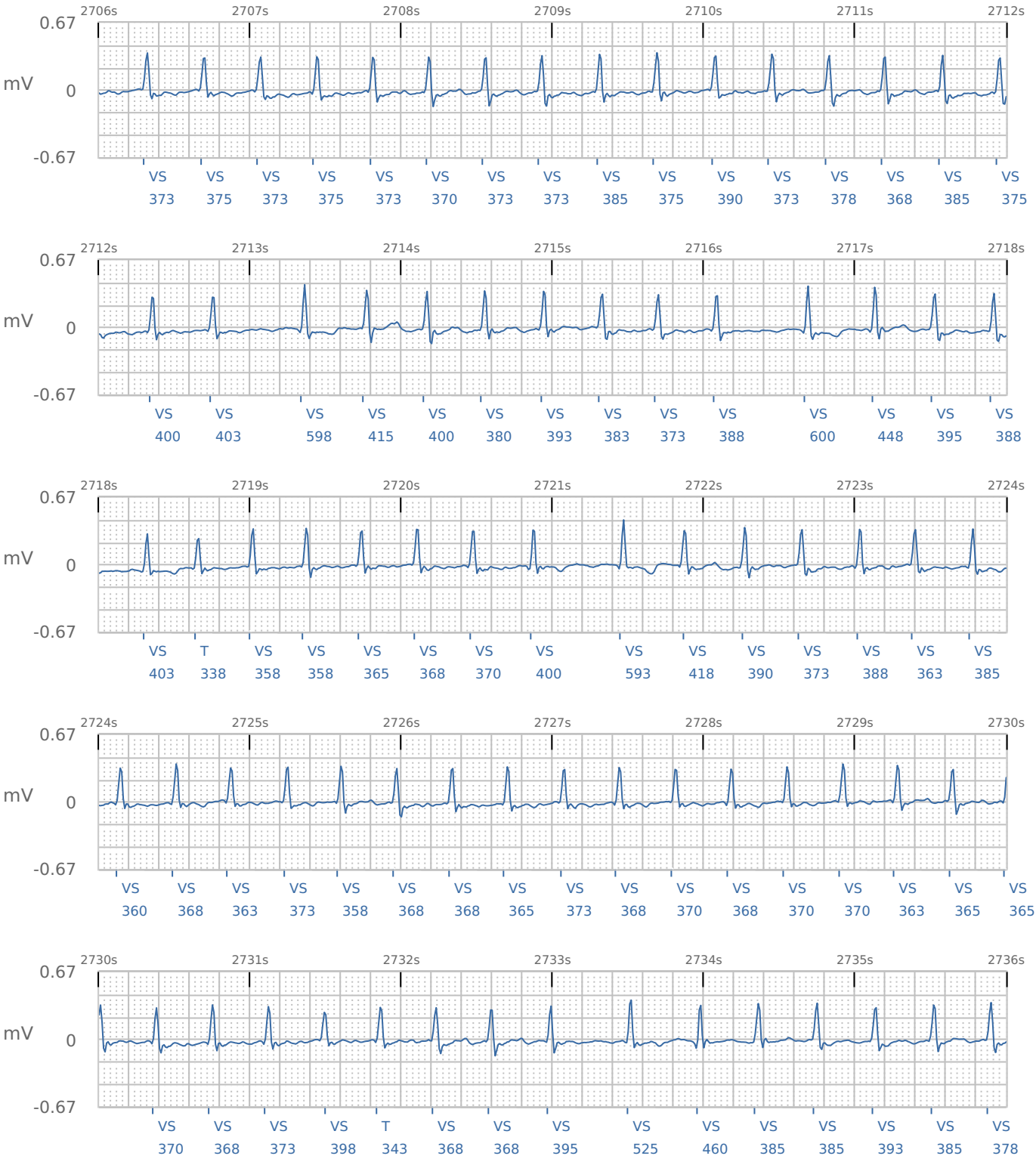


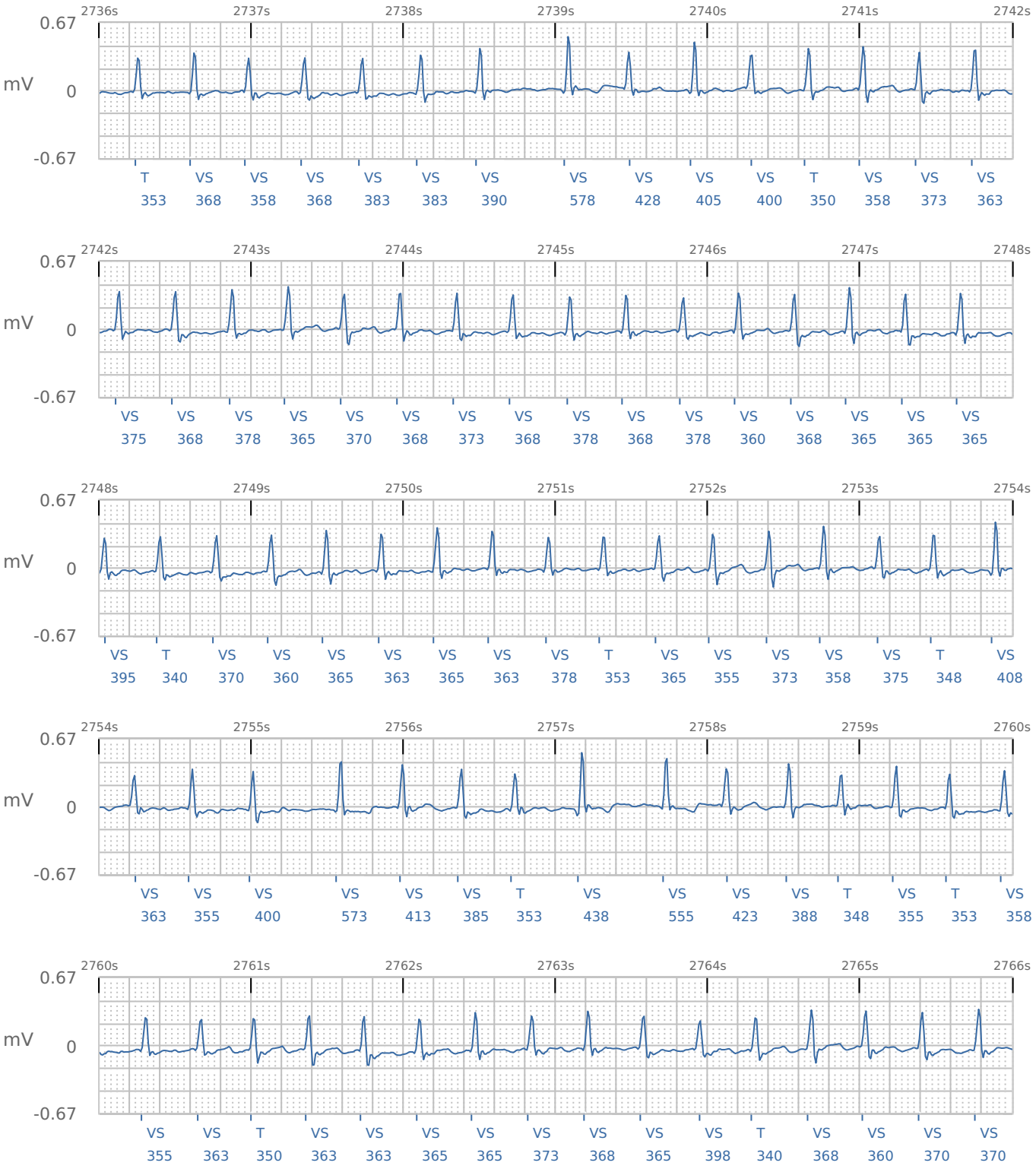


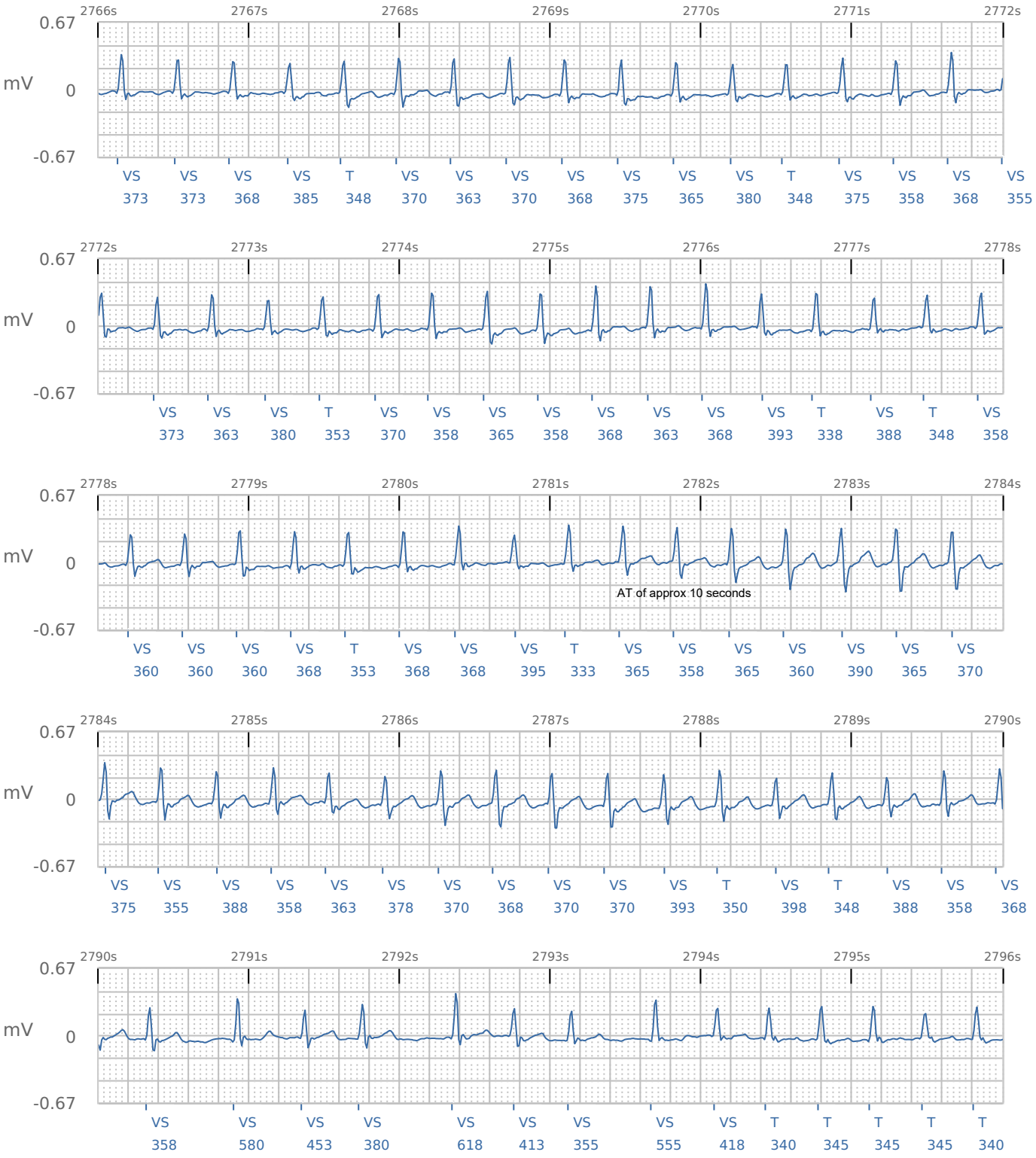


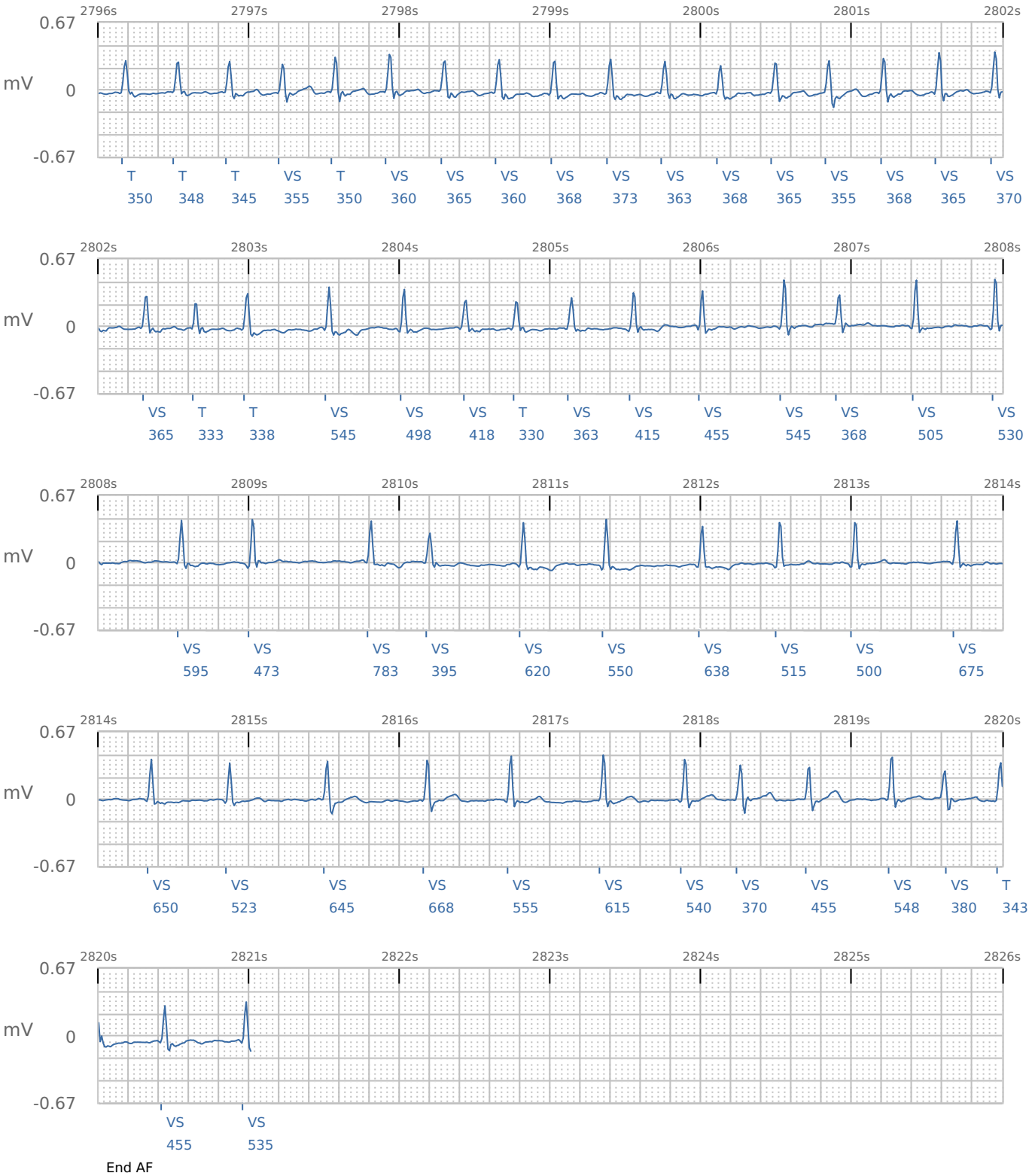
Monitoring: **Syncope**











DETAILS:

Two AF episodes showing Atrial Flutter with conversions to normal sinus rhythm

- Atrial flutter of 34-minute duration with an average ventricular rate of 86 bpm.
- The first conversion to NSR occurs between 239 seconds and 2040 seconds (report page 3), during a period that isn't stored in the S-ECG per storage guidelines below.
    - For S-ECG storage of an AF episode that's ≥2 minutes: each AF event contains 3 minutes of intervals before the start, 1 minute of annotated S-ECG data after the start, and up to 3 minutes of annotated S-ECG at the end.
- Atrial flutter begins again around 2115 seconds (report page 6).
- The conversion to NSR is visible at 2138 seconds (report page 7).
- AF settings were programmed to nominal.

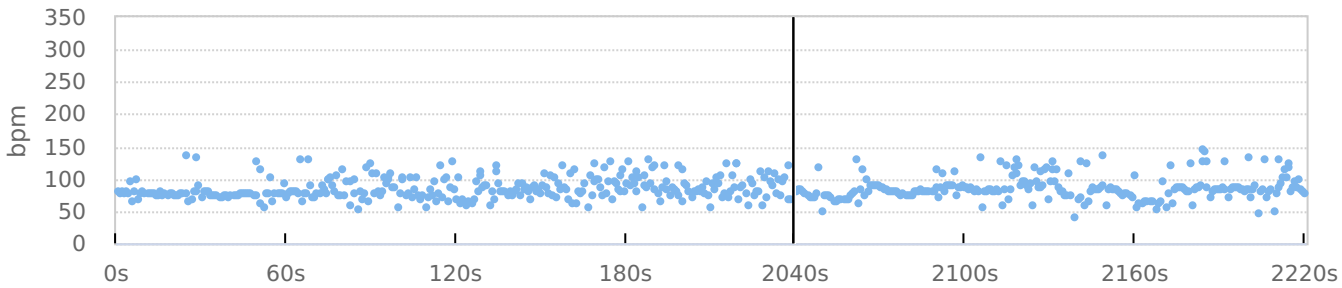
HOME

Reason For Monitoring
AF Management

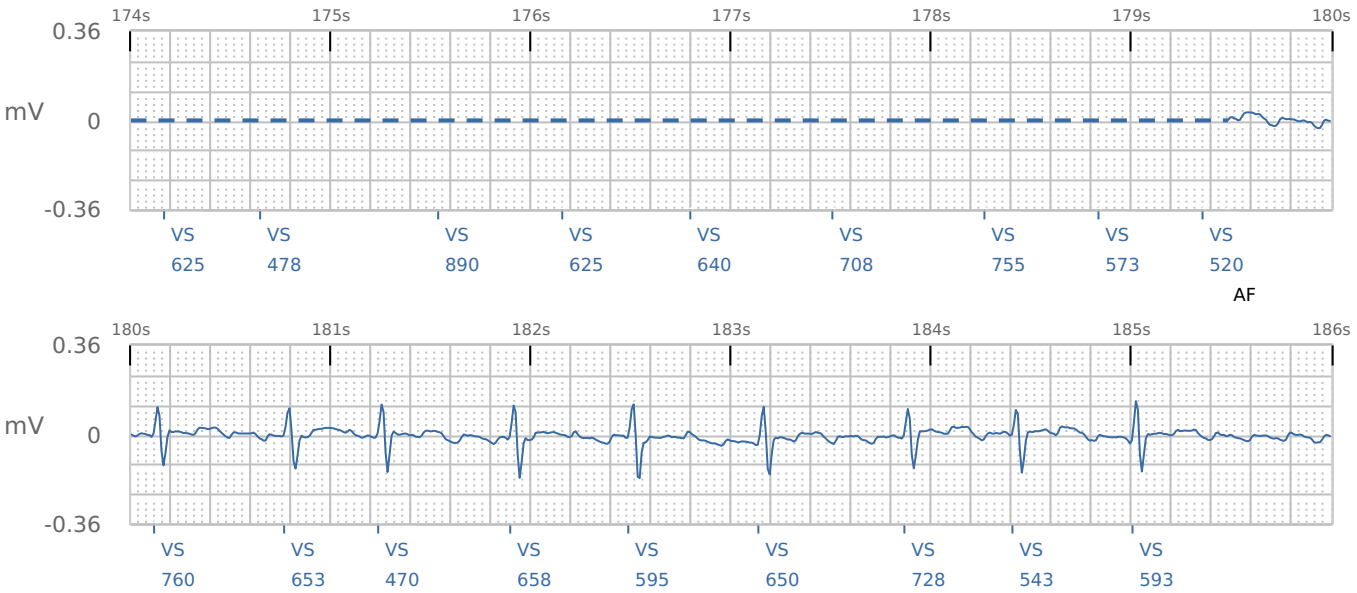
Clinical Context:
None

Event	Description	Date/Time	Duration	Rate	Assessment
AF-6	AF	Dec 04, 2020 05:10 EST	34 m 00 s	Avg 86 bpm Max 125 bpm	Appropriate

AF Settings
Response Balanced
Duration 10 min
Morphology Assessment On



S-ECG displayed at 25mm per second

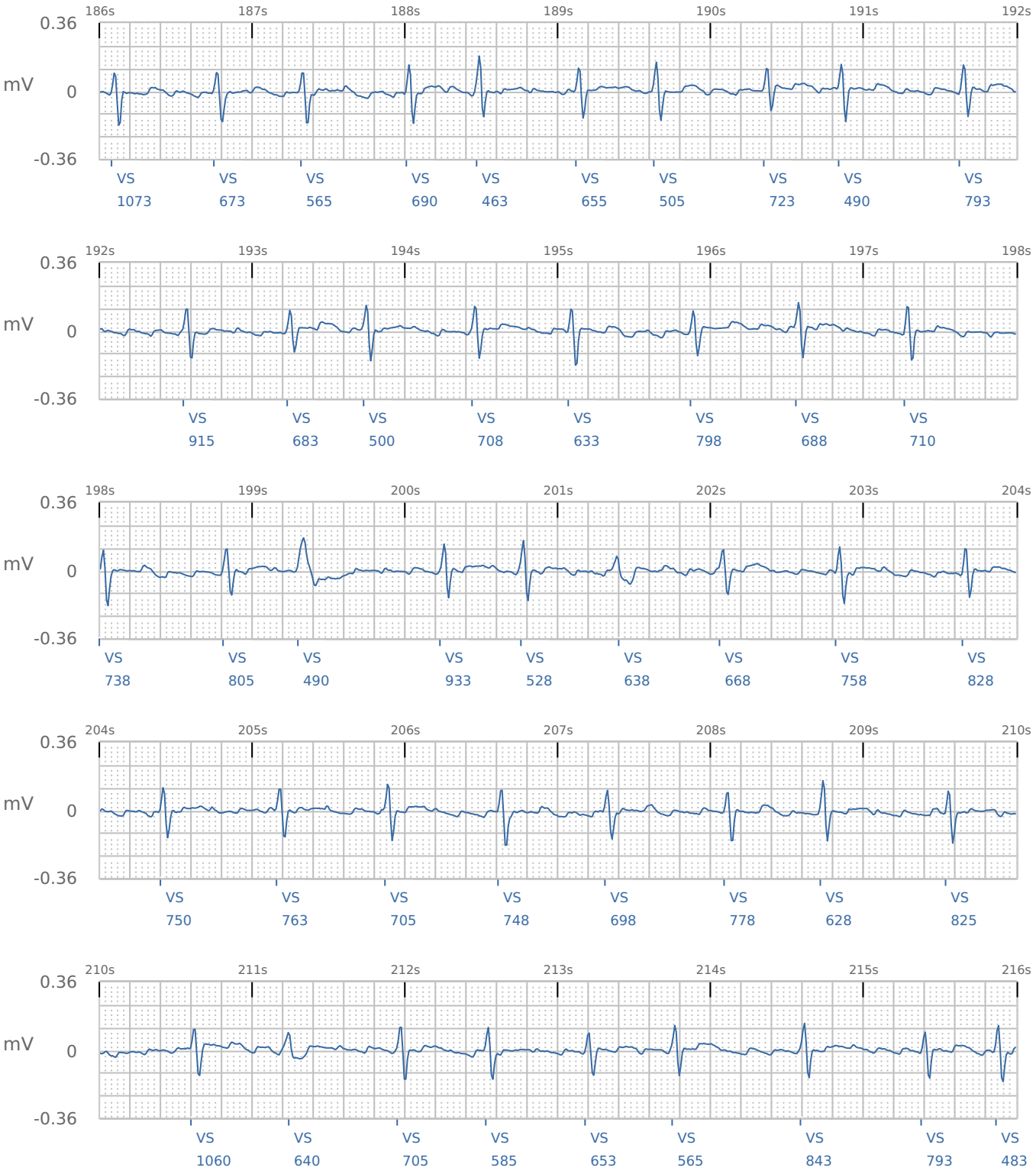


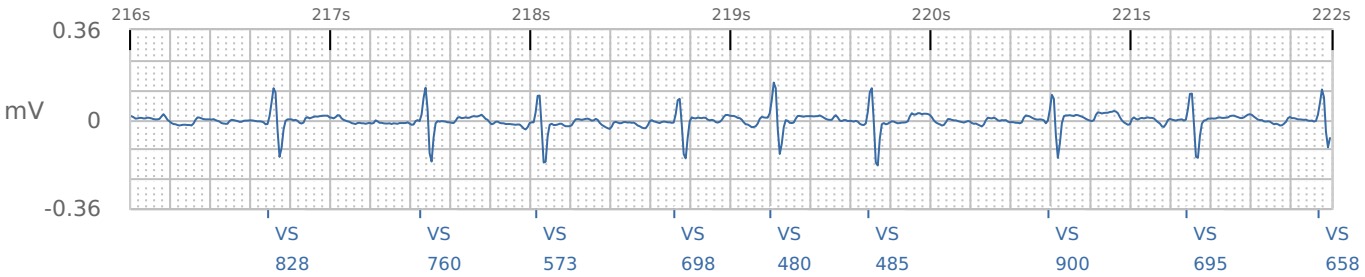
Comments & Interventions

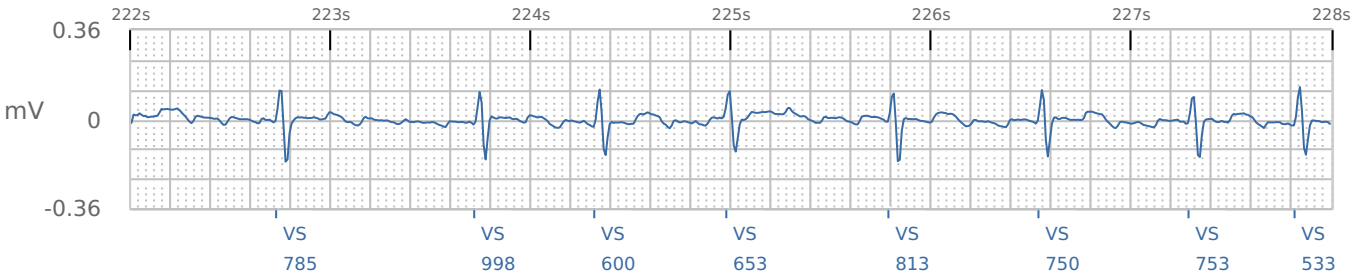
Signature

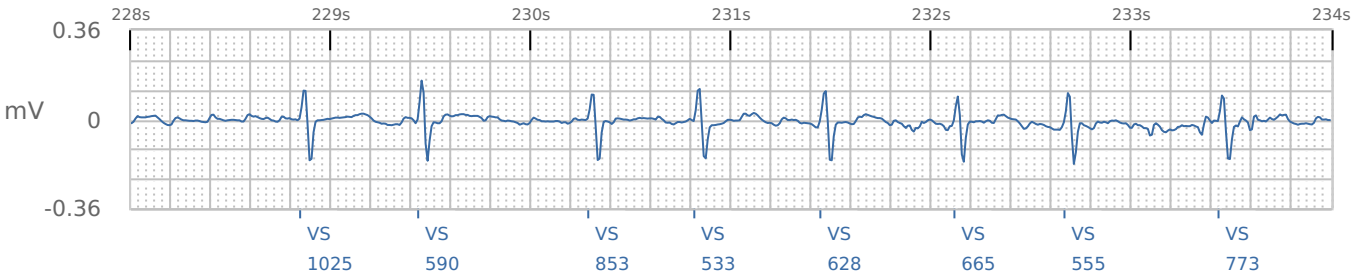
Date

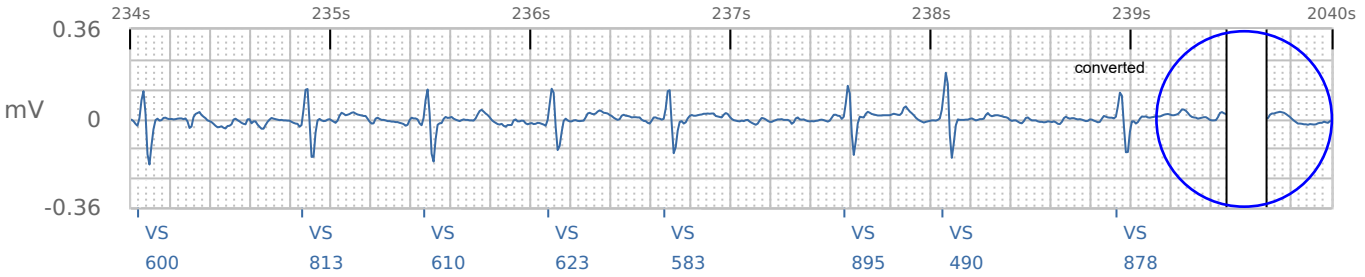
	ID:		Monitoring: AF Management

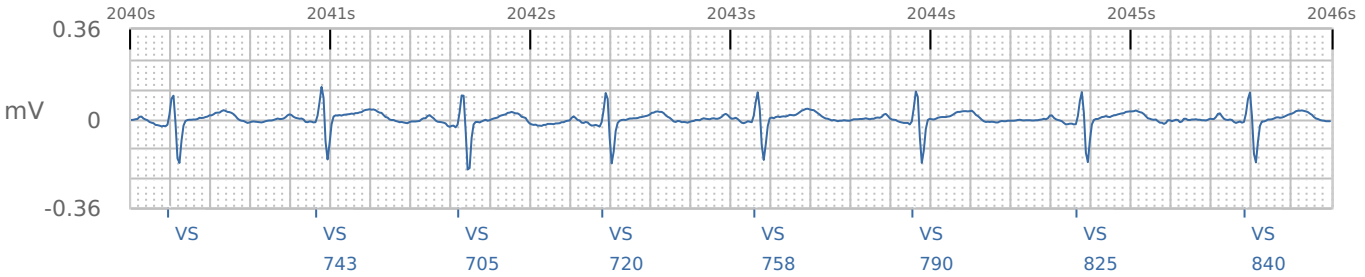


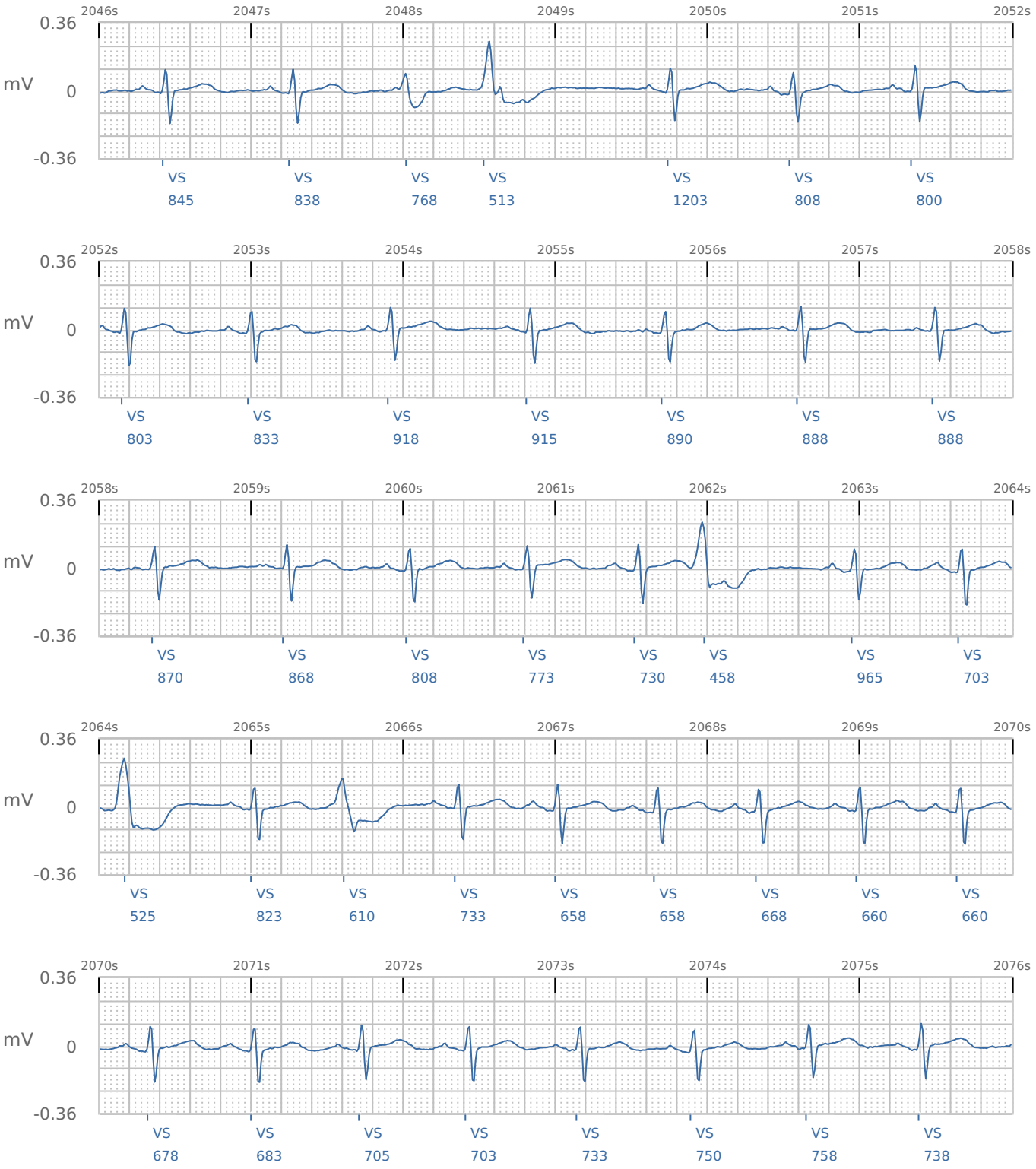


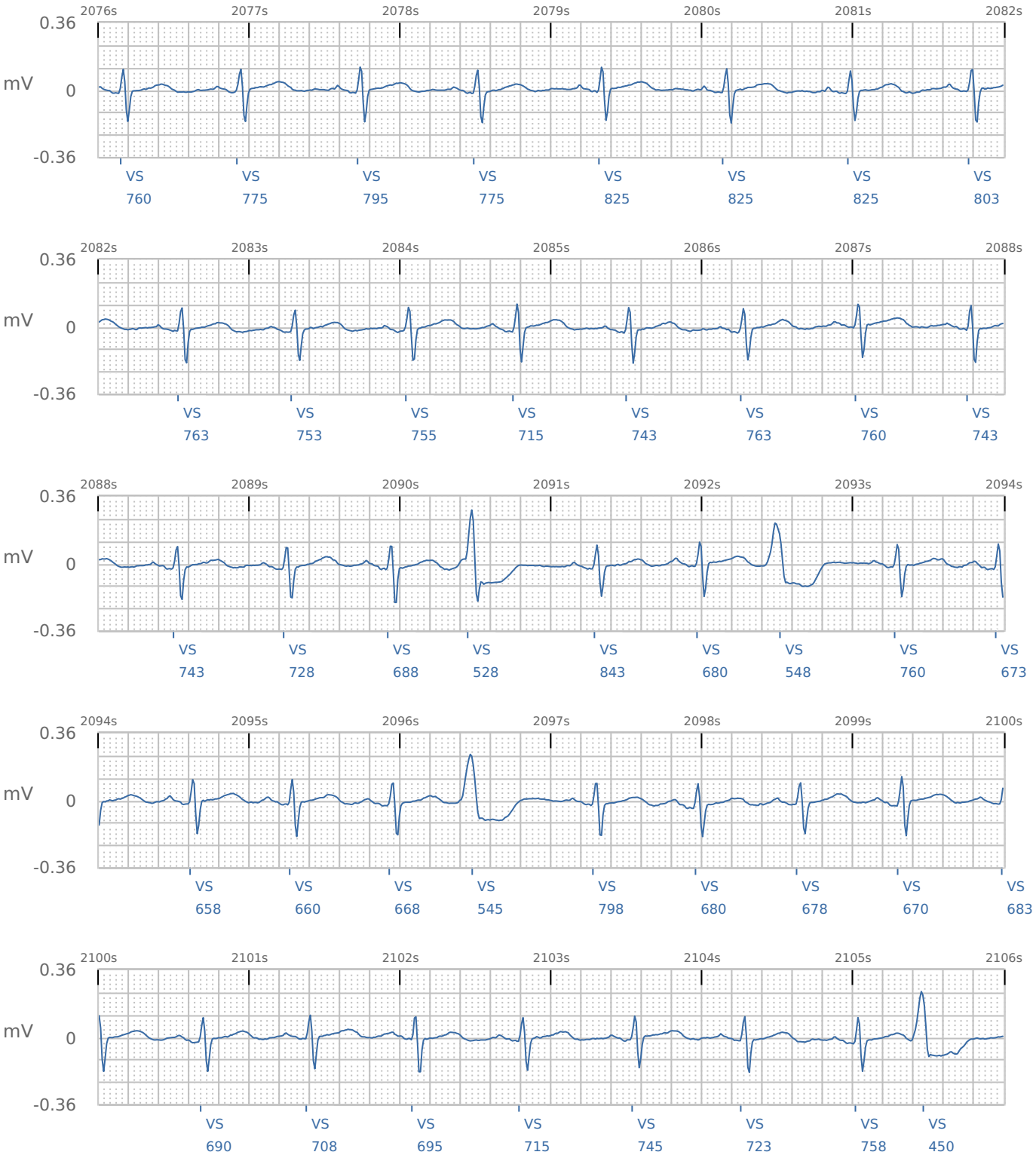


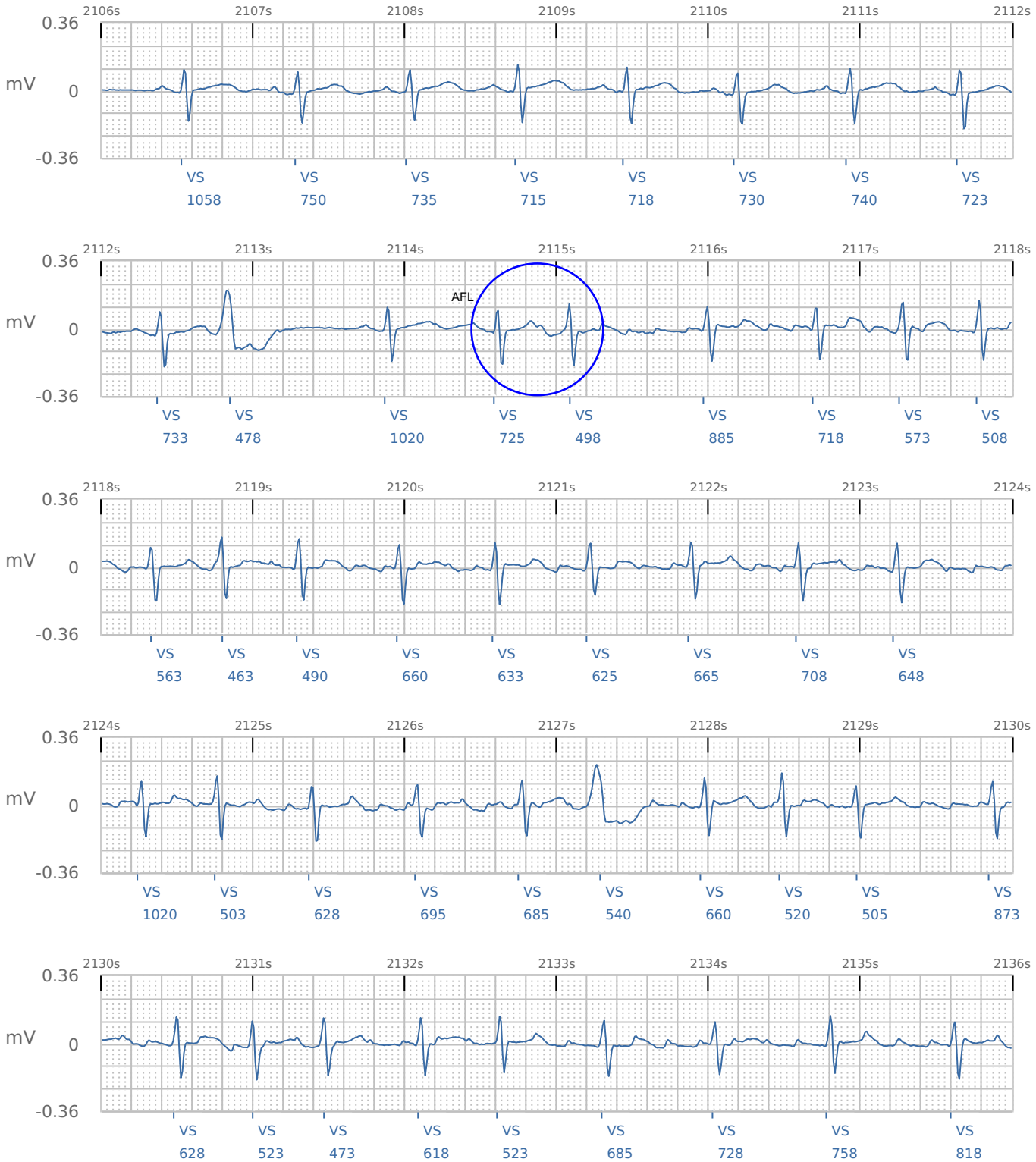


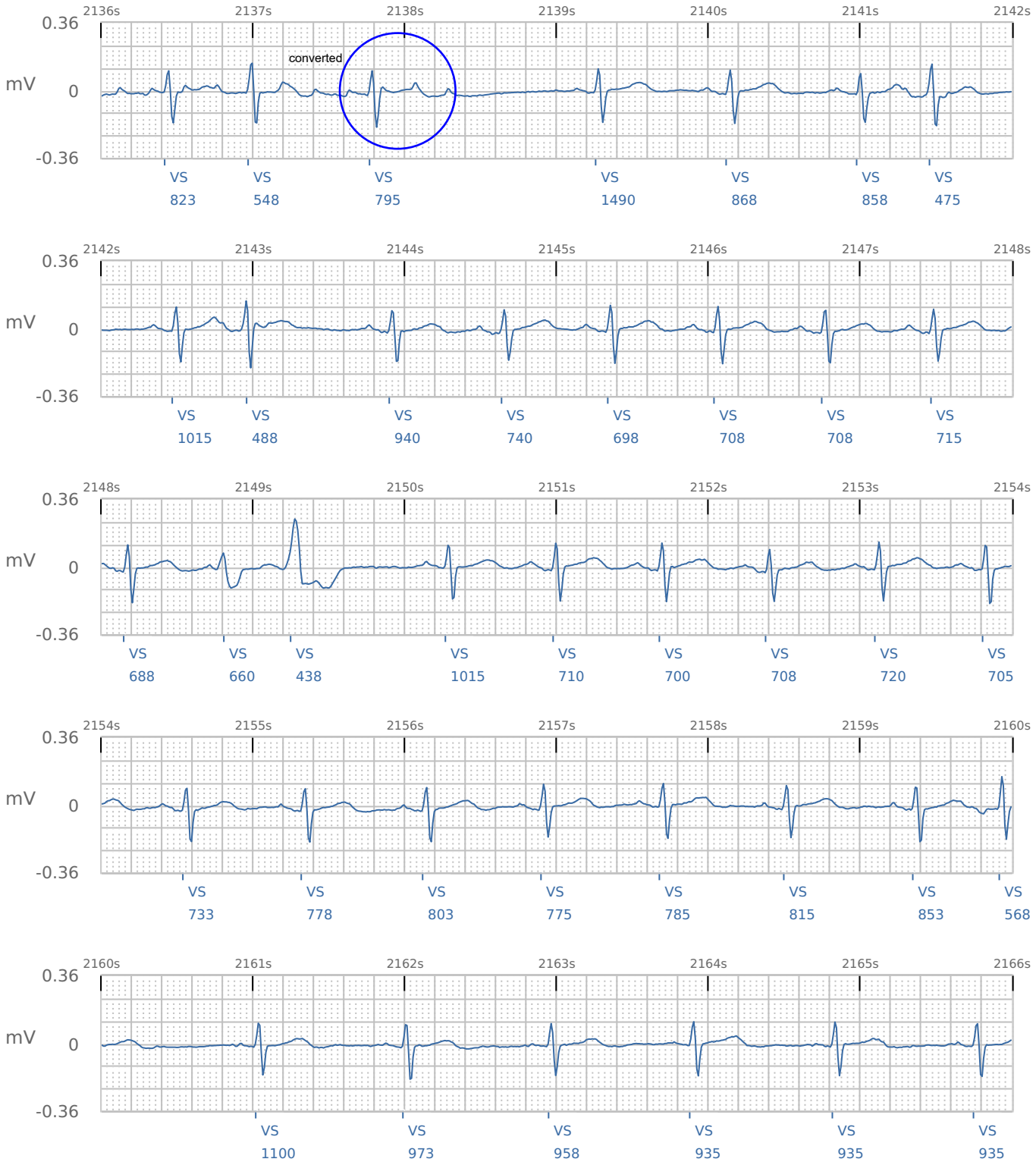


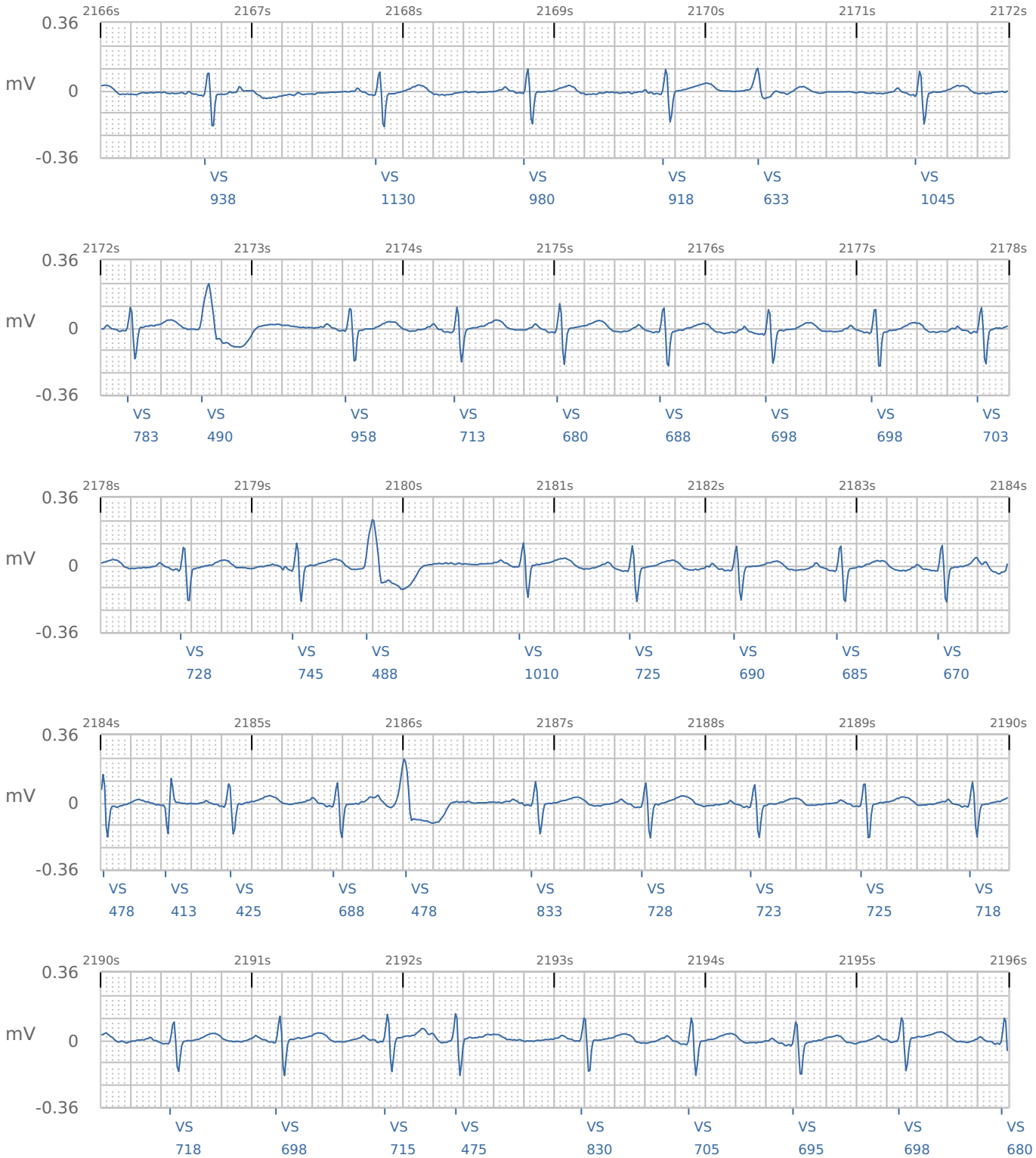


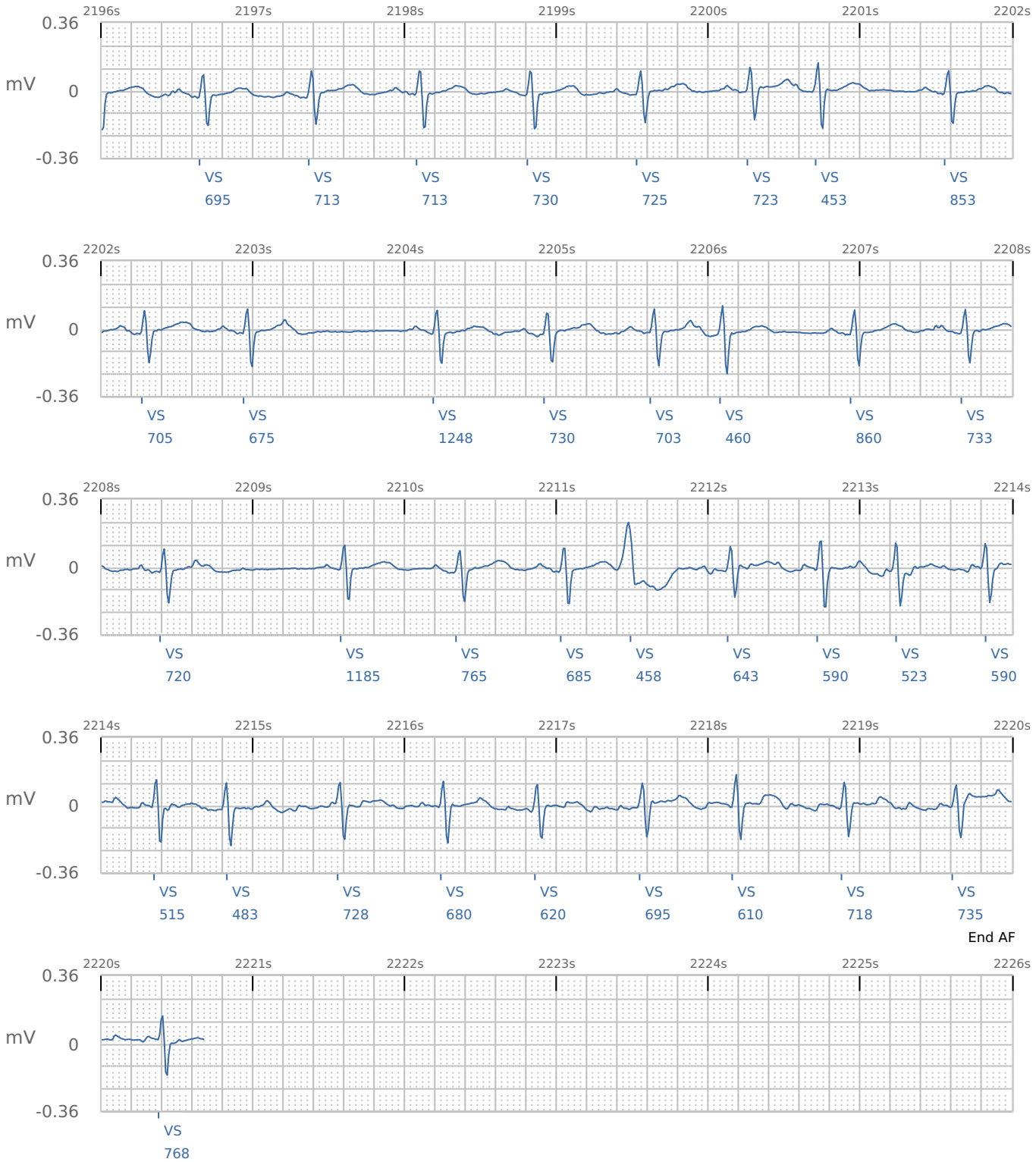












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PAUSE EVENT REPORT

PATIENT MONITORED FOR:

Syncope

DETAILS:

High degree AV block detected

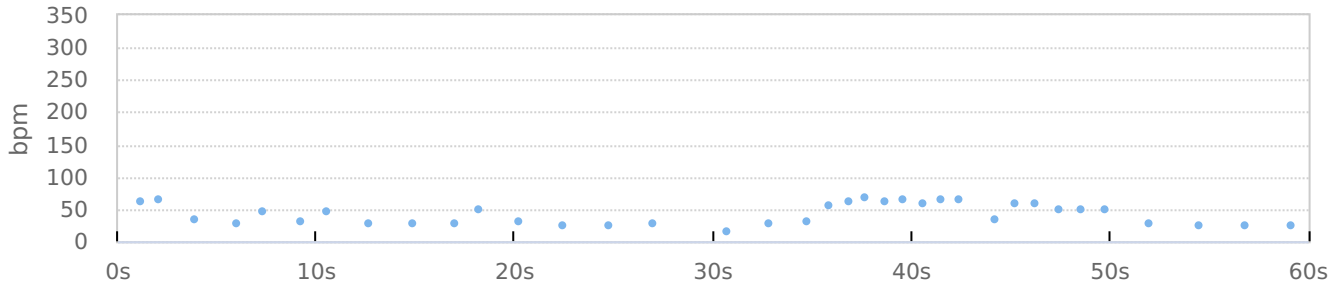
- At 7:04AM, a 3.7 second pause was detected.
- P-waves can be seen during AV block prior to the pause.
- P-waves are visible during the 3.7 second pause (report page 2).
- Ventricular sensing at 66 bpm. Bradycardia noted at 4 second mark with a heart rate of 32 bpm (report page 1).
- It may be of interest to see if the patient is on an antiarrhythmic medication that could put them at risk for pause.
- Pause settings were programmed to nominal.

Reason For Monitoring
Syncope

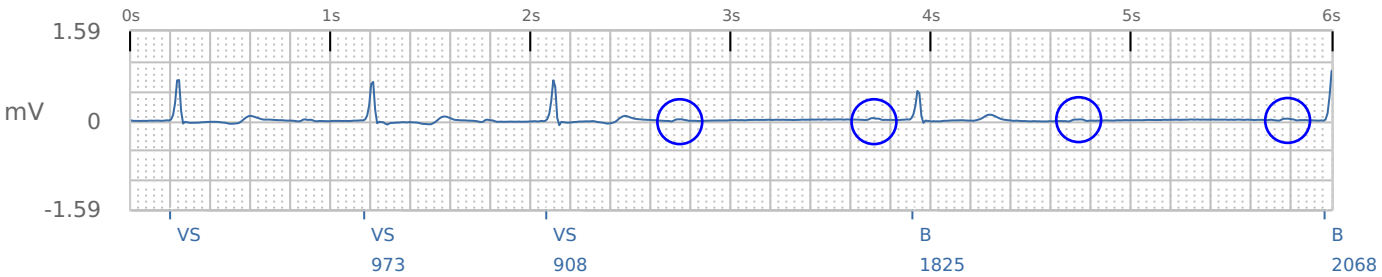
On OAC: No
On Antiarrhythmic: No
Sleep Apnea: No

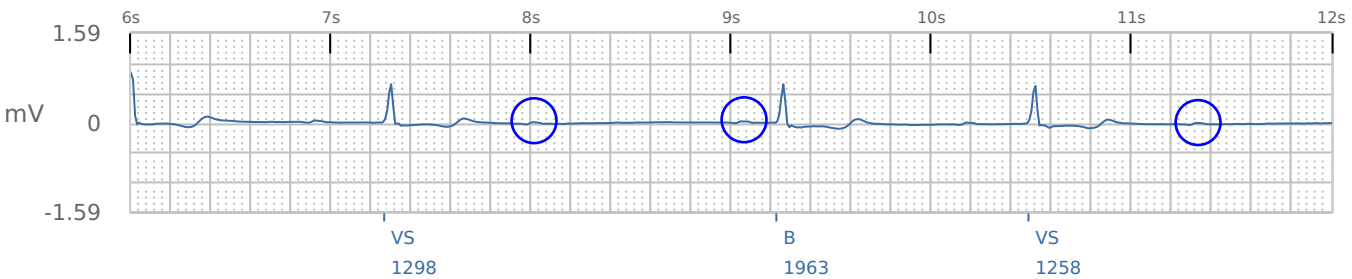
Event	Description	Date/Time	Duration	Rate	Assessment
P-6	Pause	Oct 08, 2020 07:04 CDT	3.7 s	--	Appropriate

Pause Settings Duration 3 s
Response More



S-ECG displayed at 25mm per second



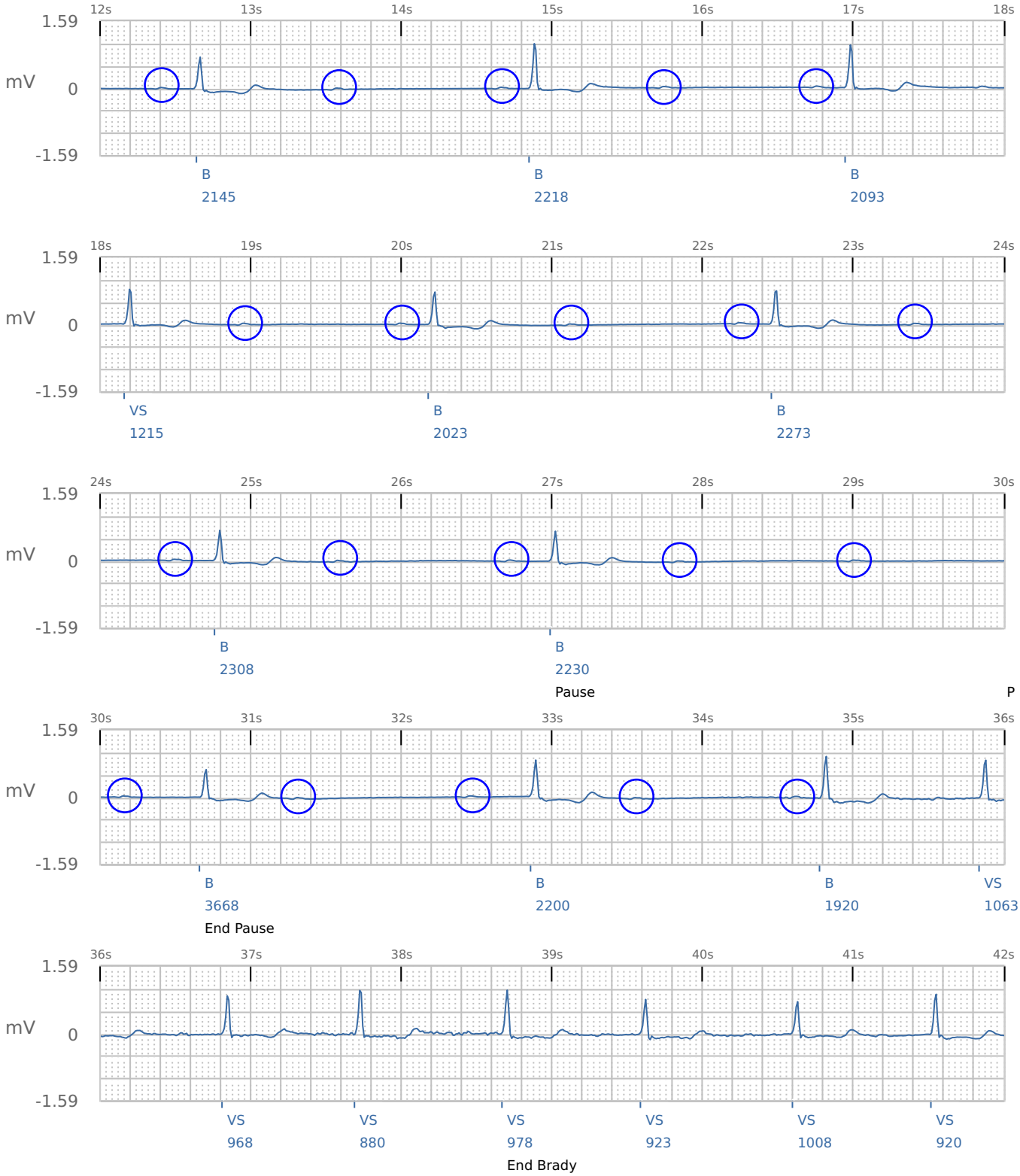


Comments & Interventions

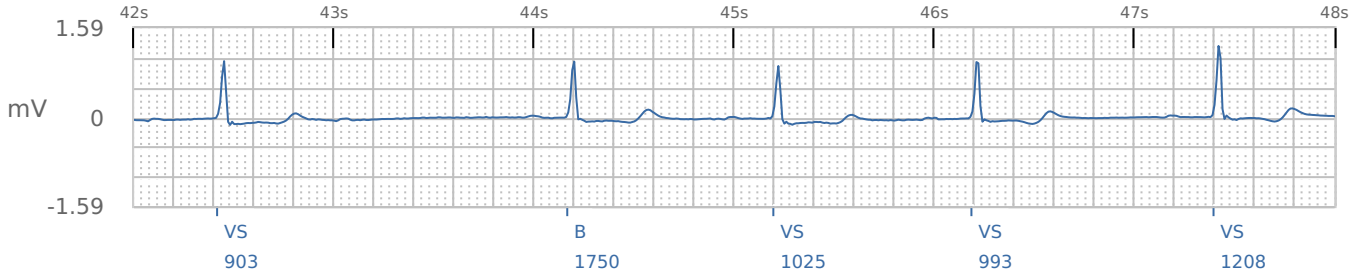
Signature

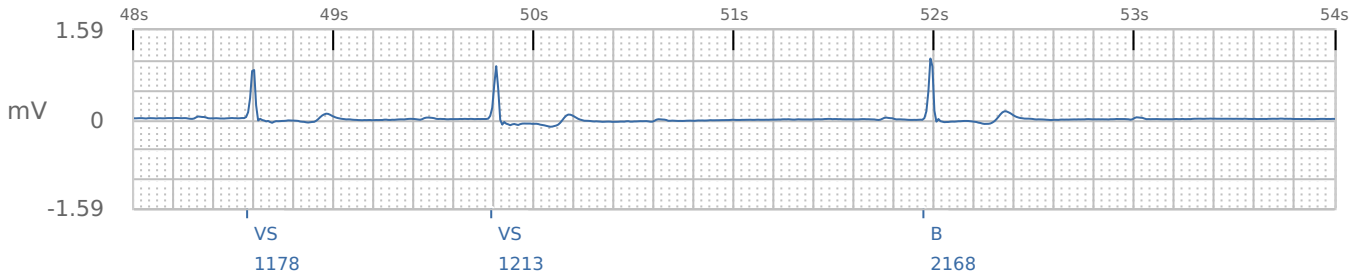
Date

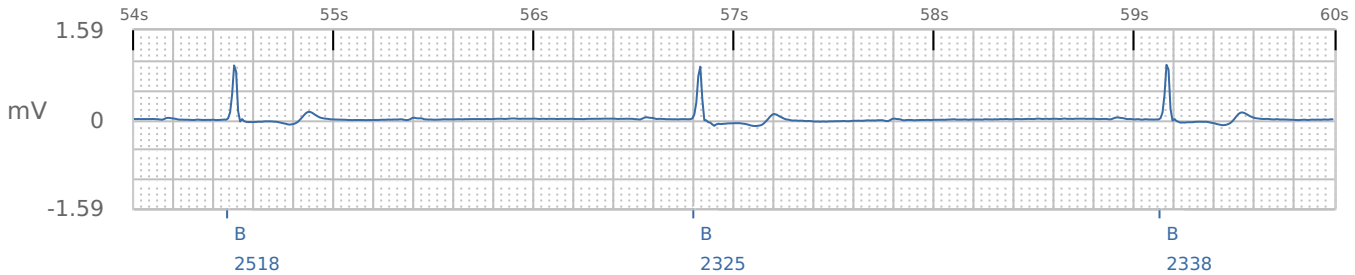
Monitoring: Syncope



Monitoring: Syncope







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PAUSE EVENT REPORT

PATIENT MONITORED FOR:

Cryptogenic Stroke

DETAILS:

4.8 second pause supported by the rate plot

- At 5:34AM, a 4.8 second pause was detected.
- In the rate plot, a heart rate drop is visible prior to and after the pause supporting a true pause.
- The beginning of the pause can be seen at 27 seconds and the end can be seen at 32 seconds, confirming the 4.8 second event duration (report page 2).
- Noise can be seen at the beginning of the report that was marked as noise per the VN marker.
- Pause settings were programmed to nominal.

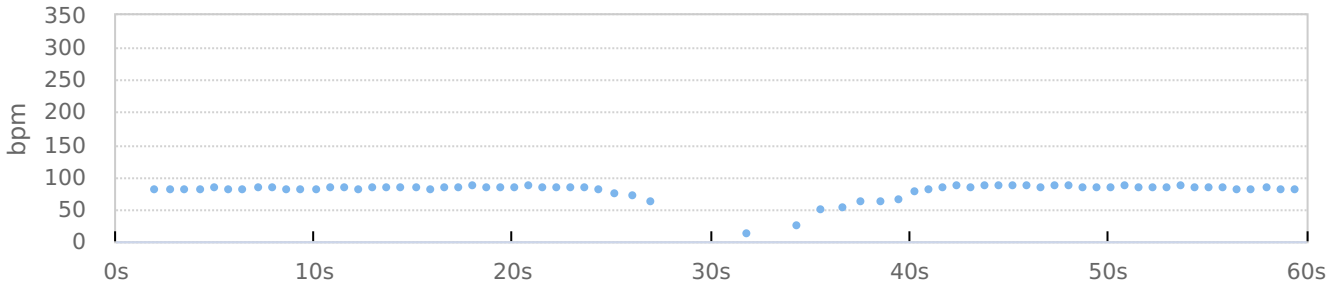
HOME

Reason For Monitoring
Cryptogenic Stroke

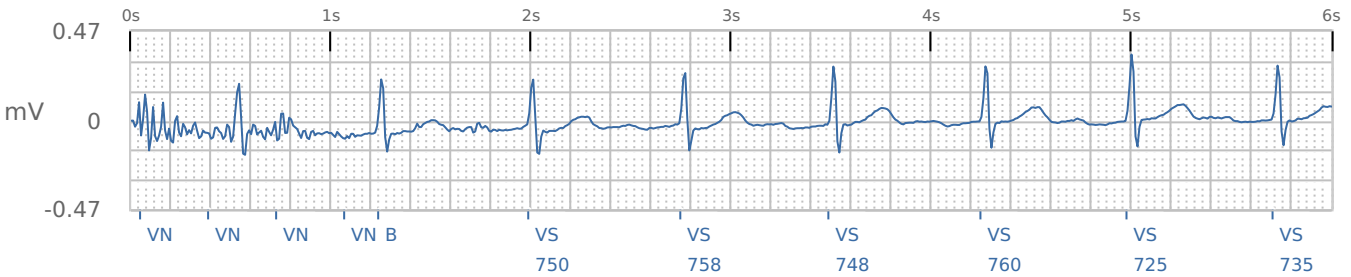
Clinical Context:
None

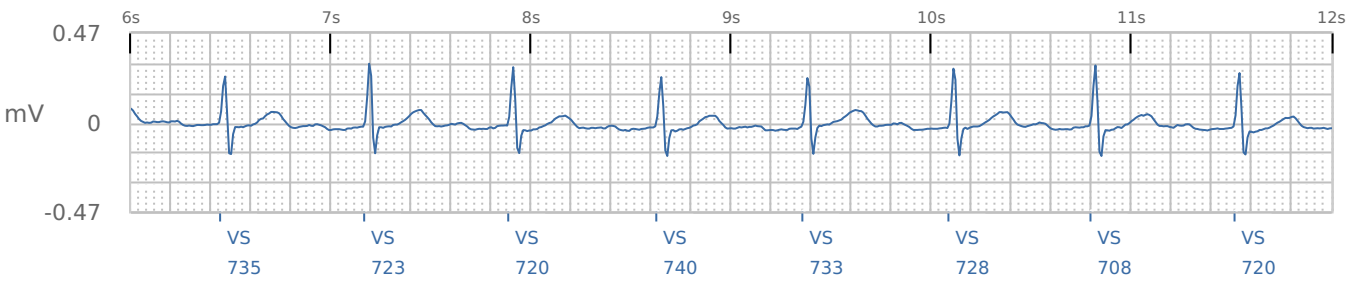
Event	Description	Date/Time	Duration	Rate	Assessment
P-1	Pause	Oct 03, 2020 05:34 CDT	4.8 s	--	Appropriate

Pause Settings Duration 3 s
Response Less



S-ECG displayed at 25mm per second

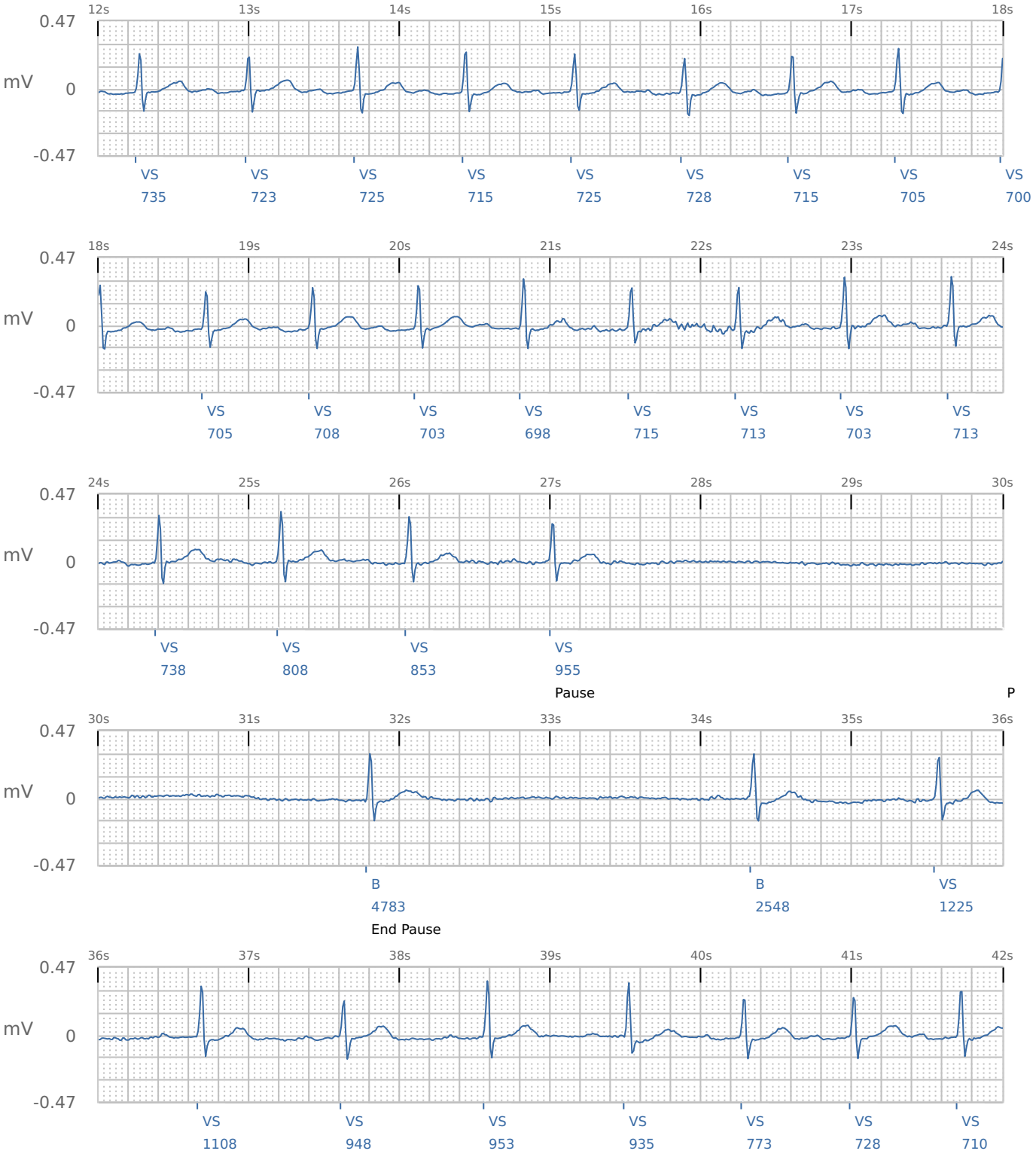


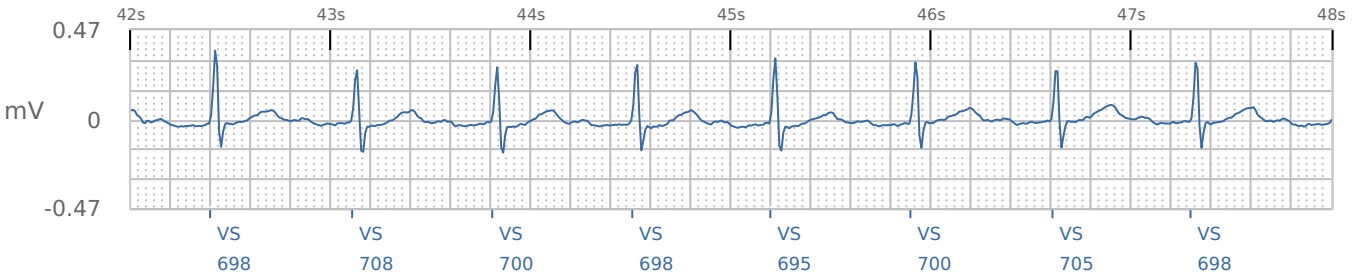


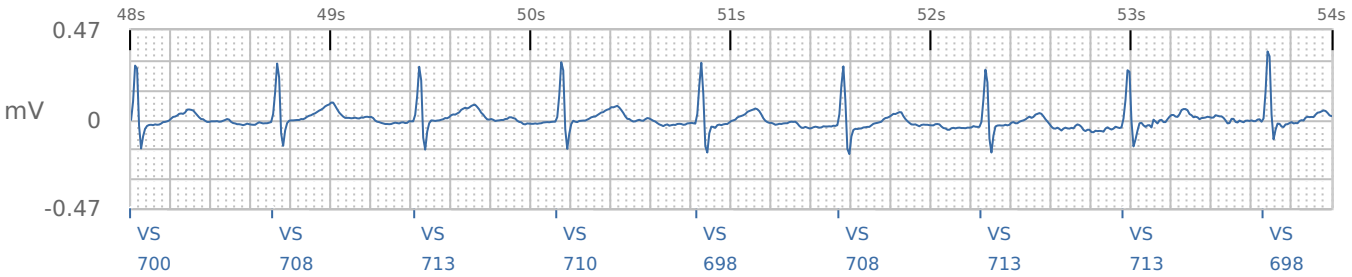
Comments & Interventions

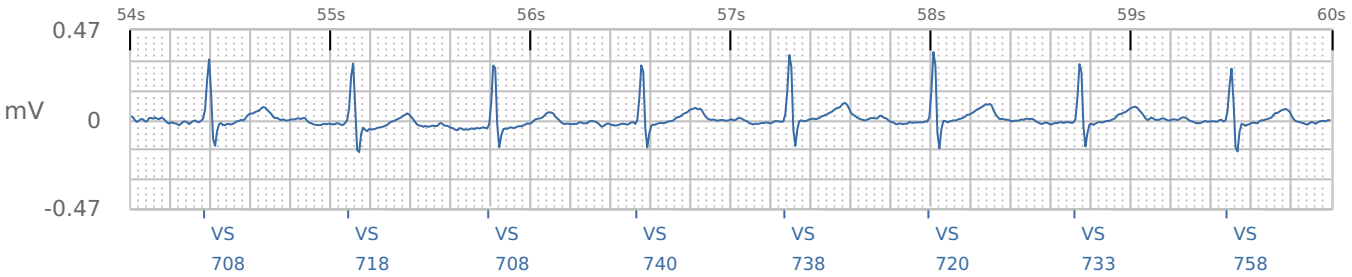
Signature

Date









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PAUSE EVENT REPORT

PATIENT MONITORED FOR:

Syncope

DETAILS:

8.8 second pause

- At 5:00AM, an 8.8 second pause was detected.
- The beginning of the pause can be seen at 27 seconds (page 2).
- Pause settings were programmed to nominal.

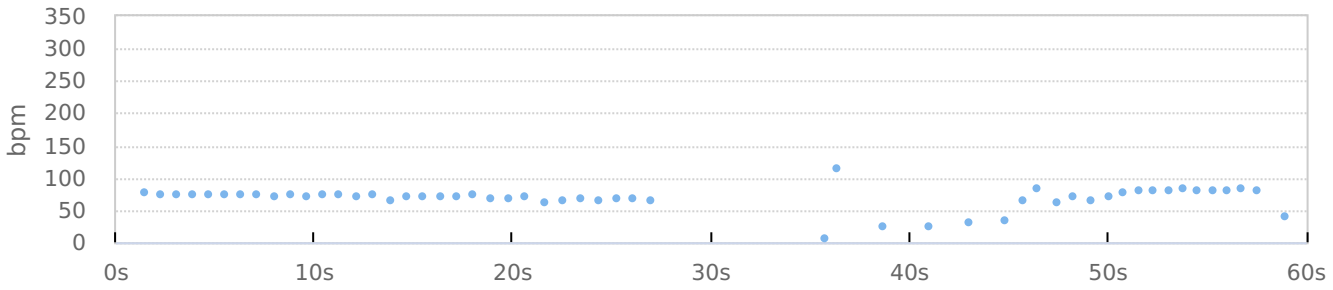
HOME

Reason For Monitoring
Syncope

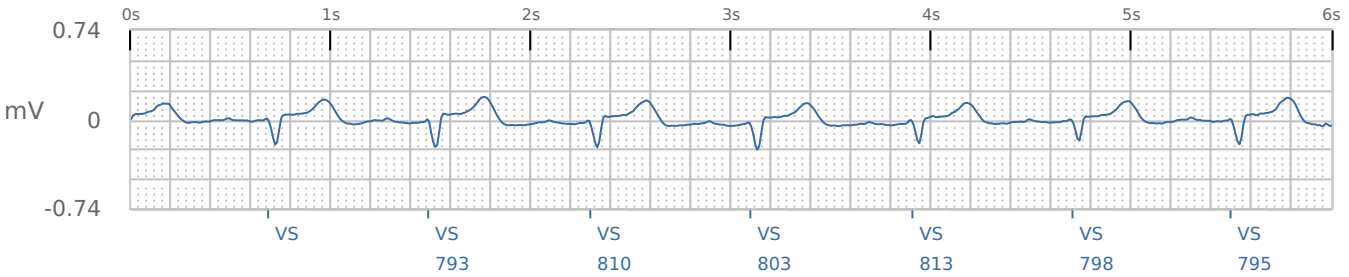
Clinical Context:
None

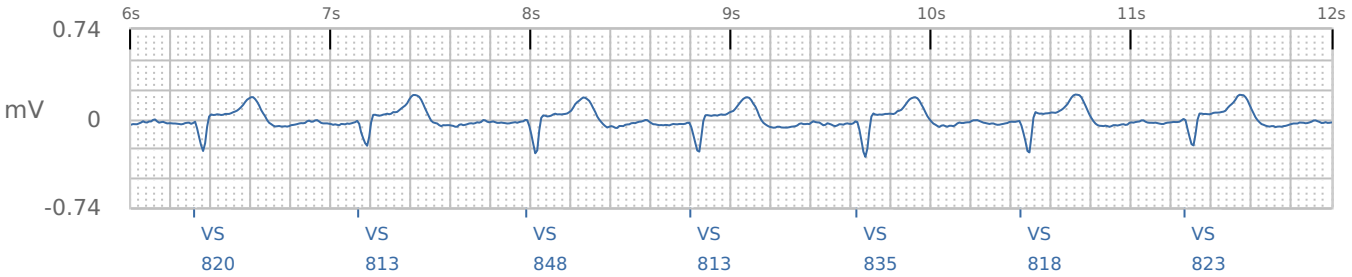
Event	Description	Date/Time	Duration	Rate	Assessment
P-2	Pause	Aug 26, 2020 05:00 CDT	8.8 s	--	Not Assessed

Pause Settings Duration 3 s
Response Balanced



S-ECG displayed at 25mm per second



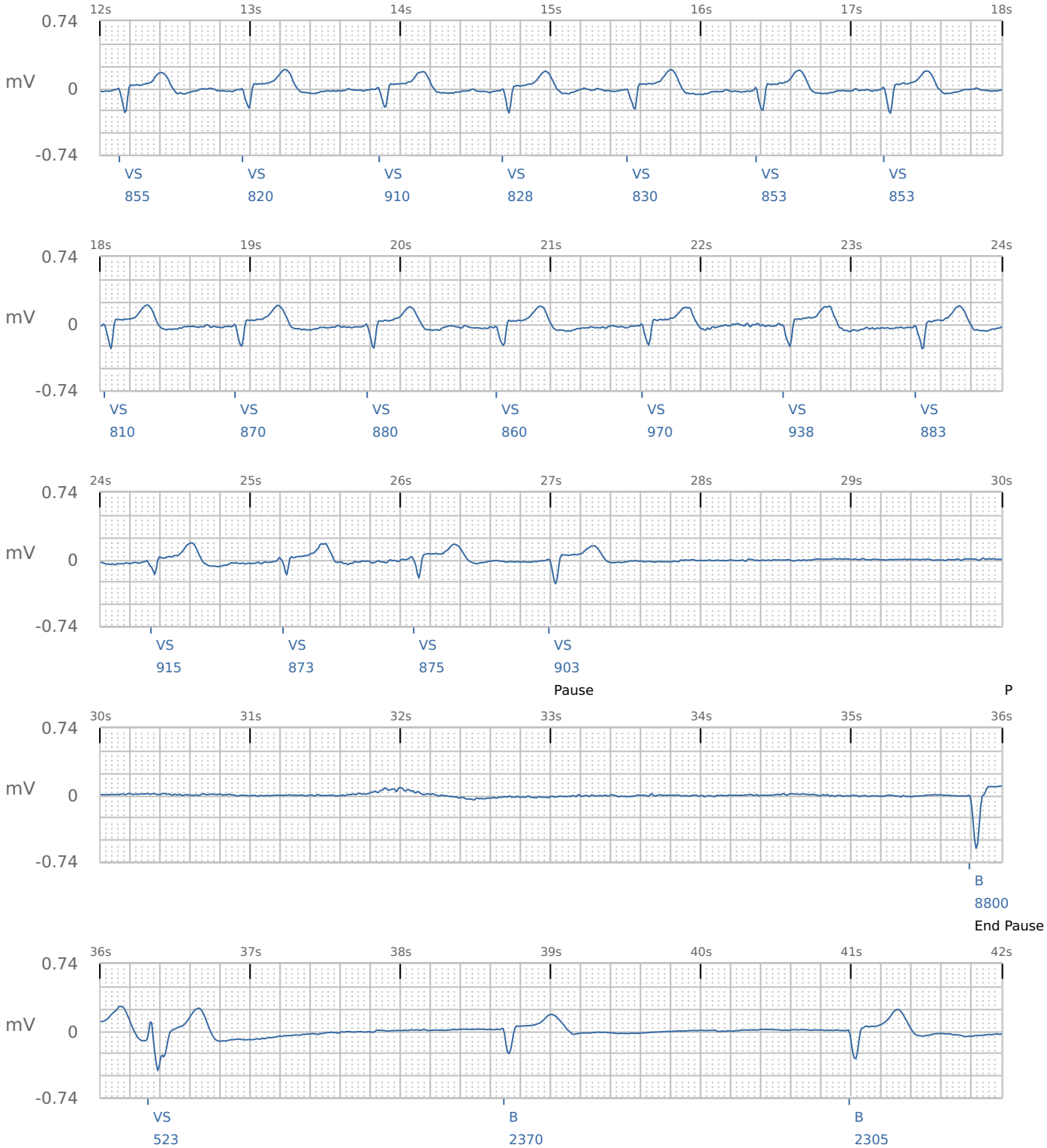


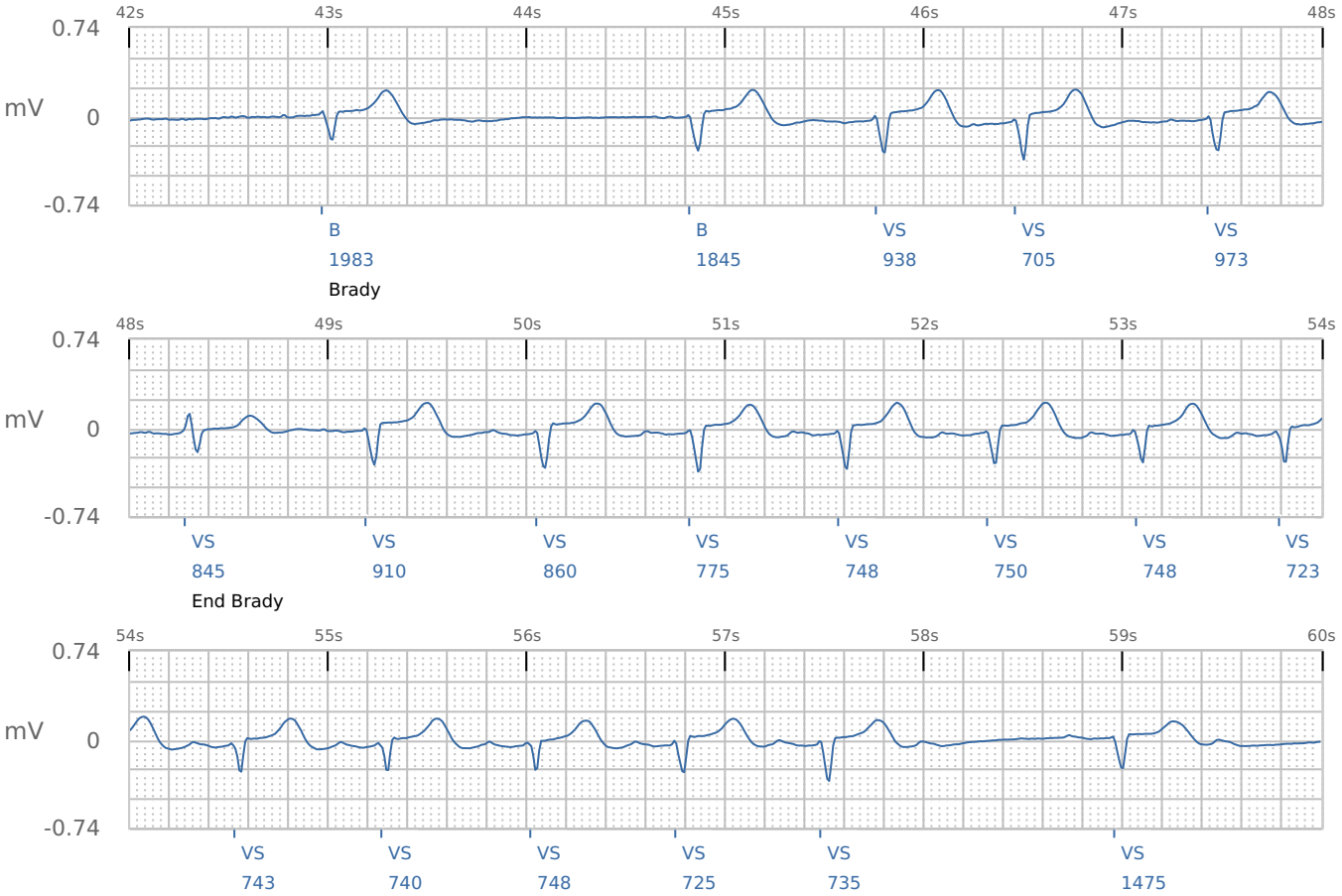
Comments & Interventions

Signature

Date

Monitoring: **Syncope**





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TACHYCARDIA EVENT REPORT

PATIENT MONITORED FOR:

Ventricular Tachycardia

DETAILS:

PVC induced non-sustained VT and return to normal sinus rhythm

- Monomorphic VT episode lasting 11 seconds (32 beats) with an average ventricular rate of 192 bpm, max V rate of 203 bpm.
- Occasional PVCs noted throughout the event.
- PVC inducing non-sustained VT at 14 seconds (report page 2).
- Return to NSR at 25 seconds (report page 2).
- These rates are calculated by the device and shown on the report.
- The threshold is programmed to the nominal of 170 bpm.

HOME

Reason For Monitoring

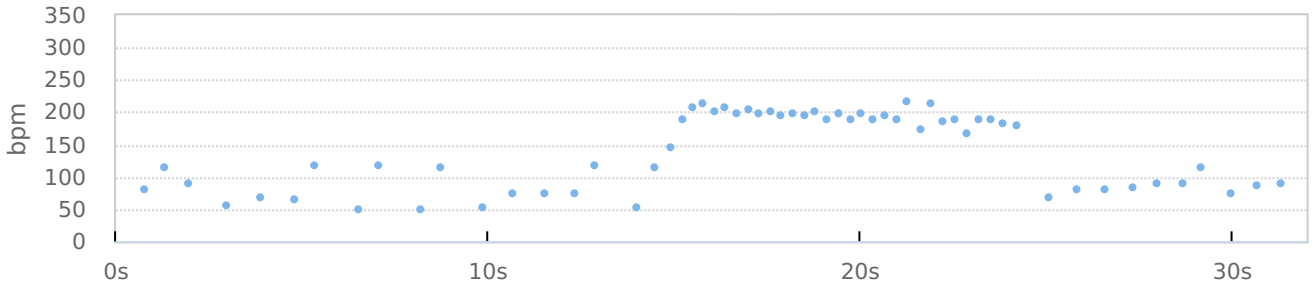
Ventricular Tachycardia

Clinical Context:
None

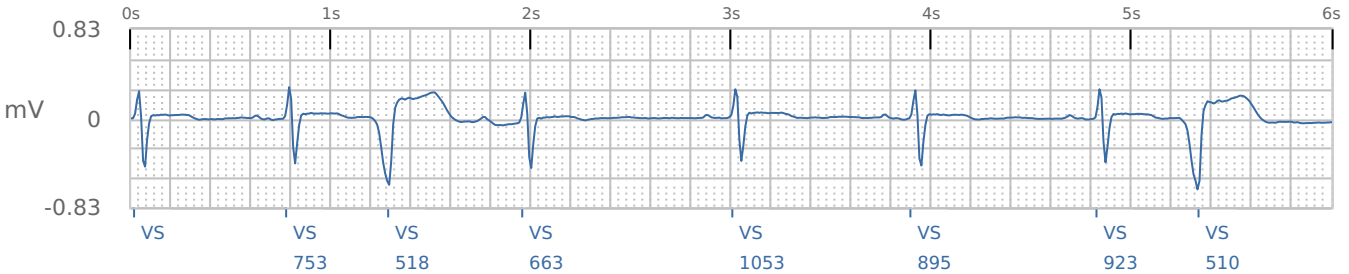
Event	Description	Date/Time	Duration	Rate	Assessment
T-1	Tachy (VT)	Sep 23, 2020 06:07 EDT	13 s	Avg 192 bpm Max 203 bpm	Not Assessed

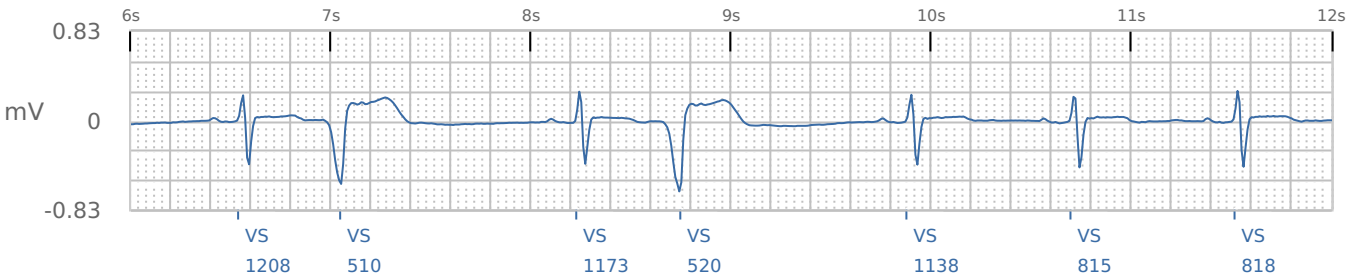
Tachy Settings

Rate 170 bpm
Duration 5 s
Response More
Morphology Assessment On



S-ECG displayed at 25mm per second





Comments & Interventions

Signature

Date

Monitoring: Ventricular Tachycardia

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TACHYCARDIA EVENT REPORT

PATIENT MONITORED FOR:

Syncope

DETAILS:

SVT event

- SVT episode lasting 6 minutes and 48 seconds with an average ventricular rate of 160 bpm, max V rate of 188 bpm.
- Episode begins at 12 seconds (report page 2).
- These rates are calculated by the device and shown on the report.
- Clinic adjusted the nominal Tachy settings for a syncope patient from a nominal rate of 170 bpm to 150 bpm.

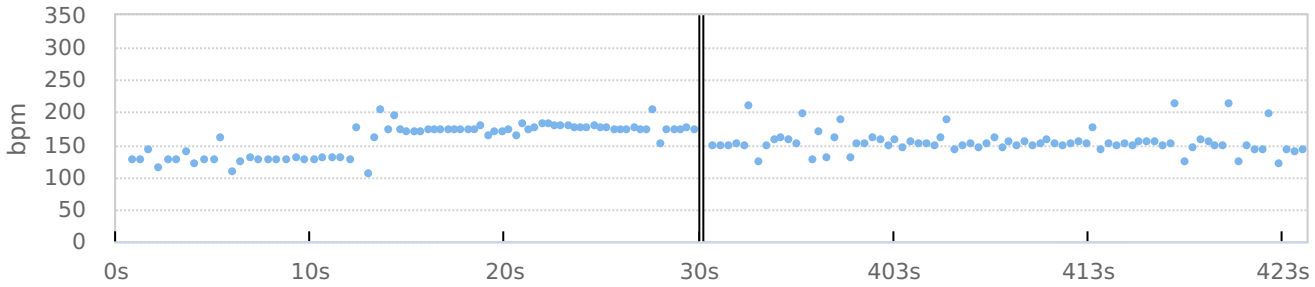
HOME

Reason For Monitoring
Syncope

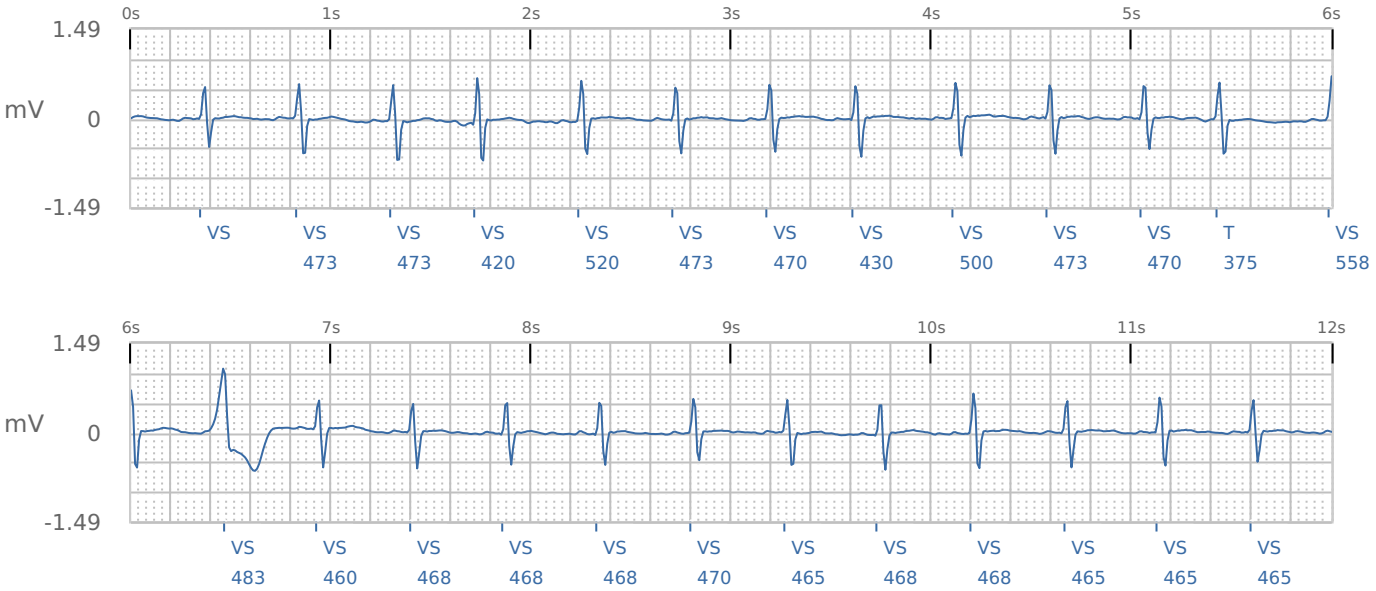
Clinical Context:
None

Event	Description	Date/Time	Duration	Rate	Assessment
T-37	Tachy (SVT)	Sep 04, 2020 06:20 EDT	6 m 48 s	Avg 160 bpm Max 188 bpm	Not Assessed

Tachy Settings
Rate 150 bpm
Duration 5 s
Response More
Morphology Assessment On



S-ECG displayed at 25mm per second

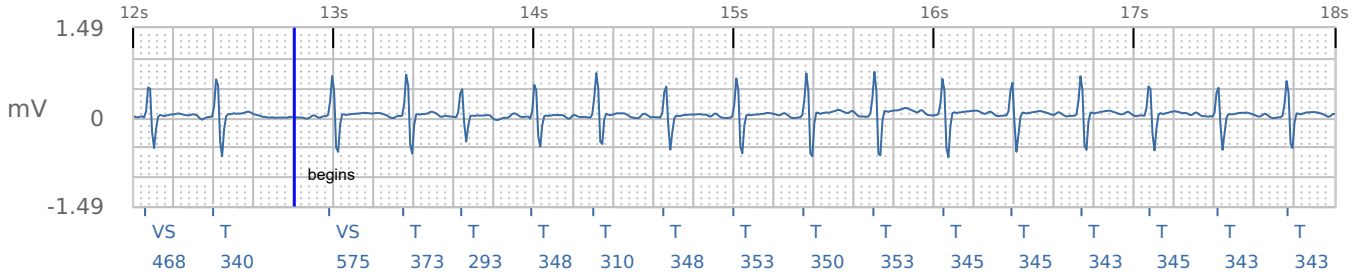


Comments & Interventions

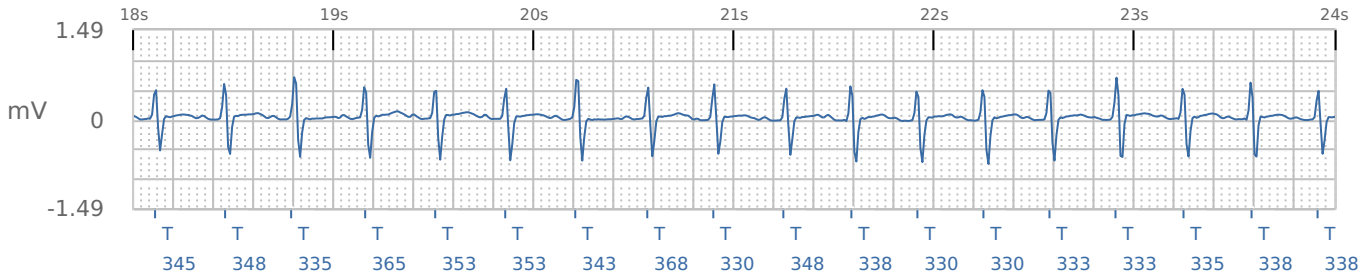
Signature

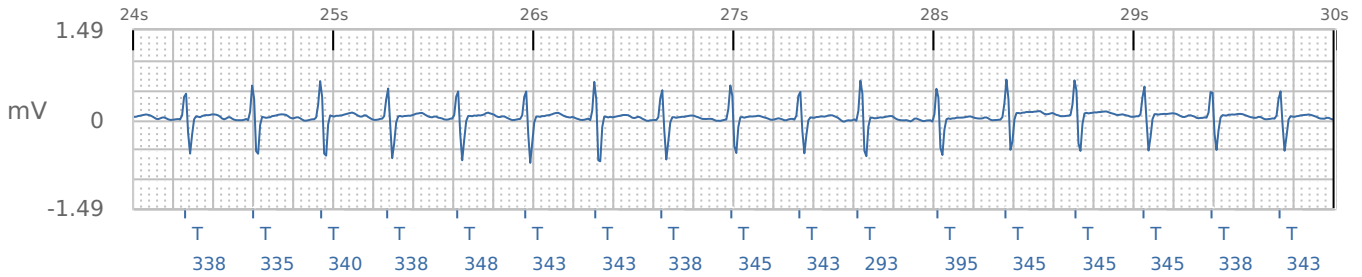
Date

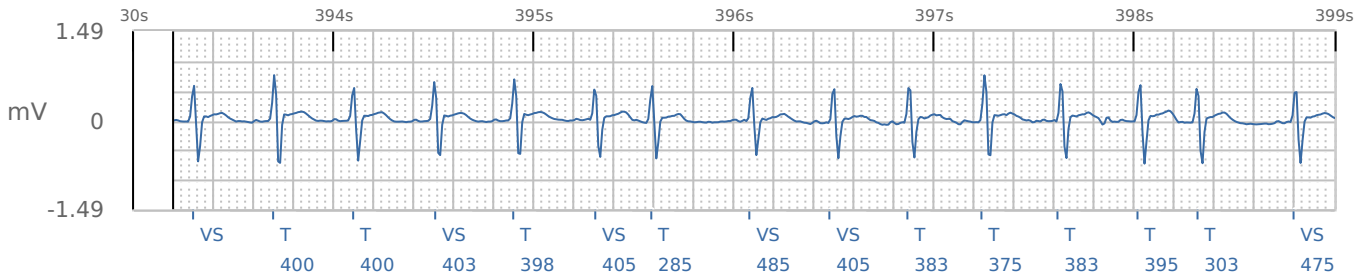
Monitoring: Syncope

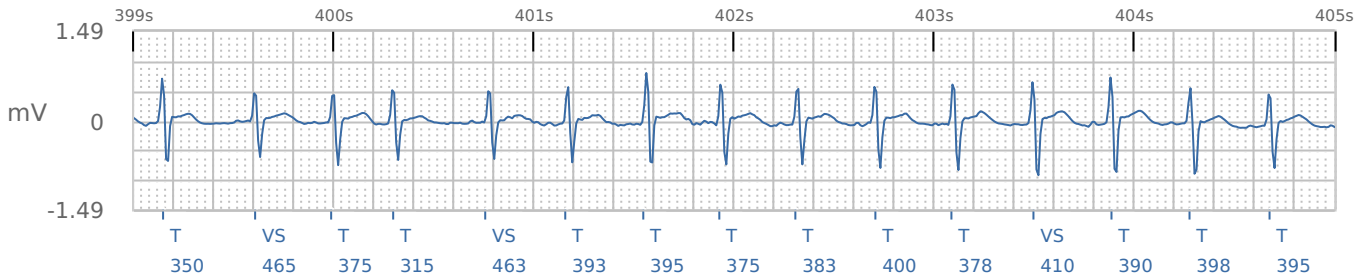


Tachy

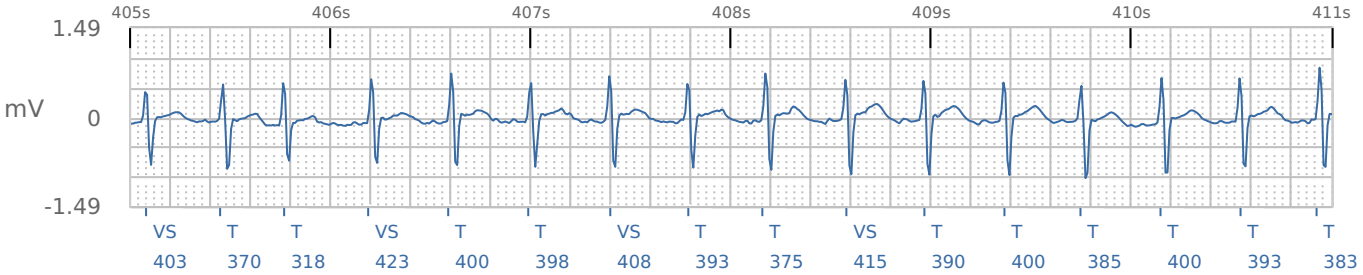


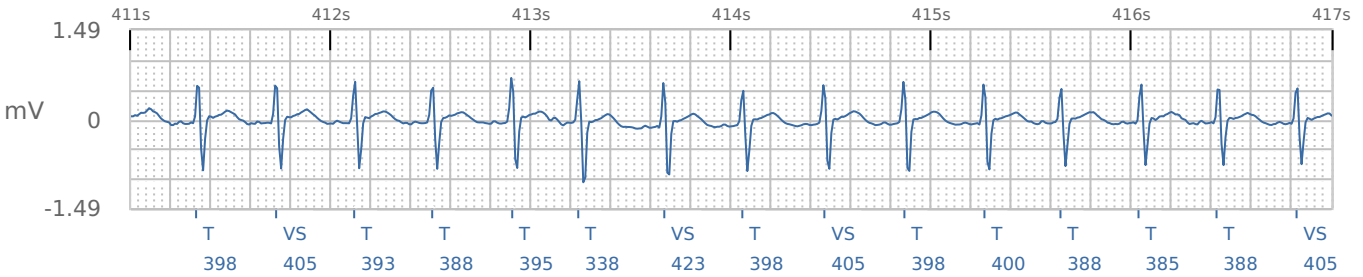


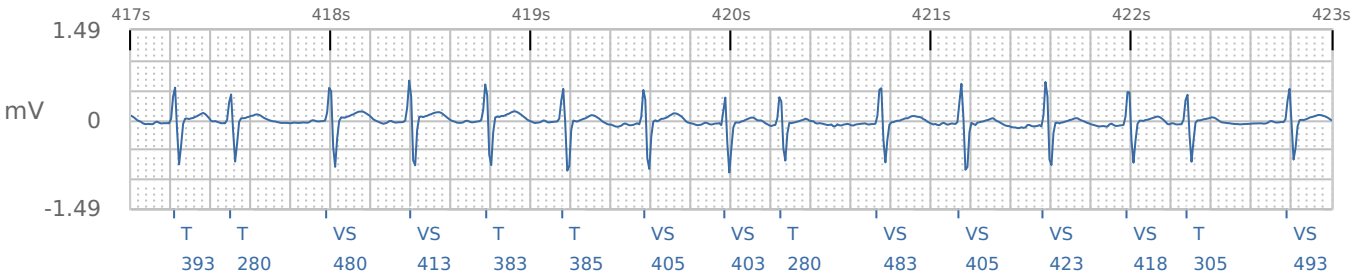


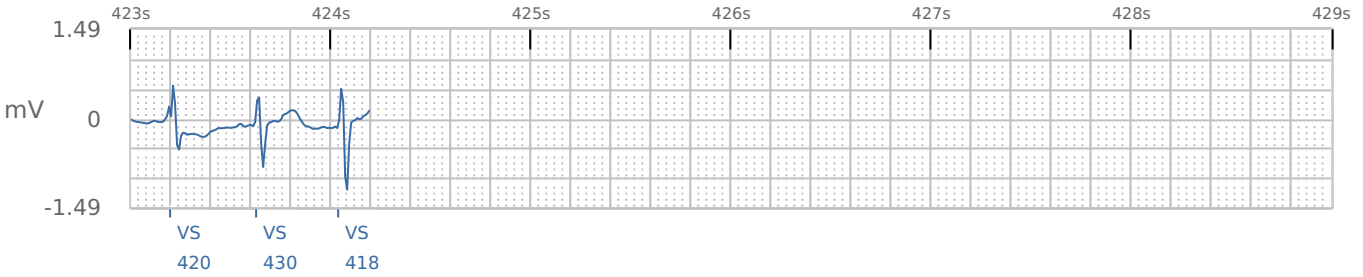


Monitoring: Syncope









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TACHYCARDIA EVENT REPORT

PATIENT MONITORED FOR:

AF Management

DETAILS:

SVT episode and return to normal sinus rhythm

- SVT episode lasting 14 seconds with an average ventricular rate of 160 bpm, max V rate of 169 bpm.
- Around 23 seconds, the SVT returns to NSR (report page 2).
- These rates are calculated by the device and shown on the report.
- The clinic adjusted the nominal Tachy settings for an AF Management patient from a nominal rate of 170 bpm to 150 bpm.

HOME

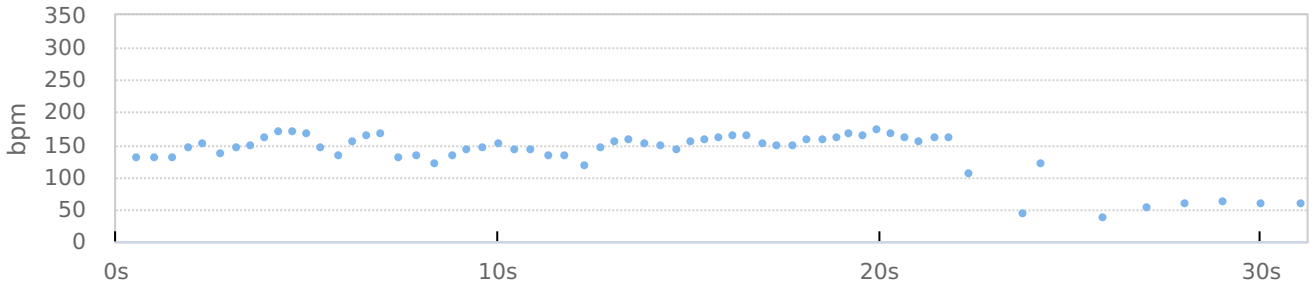
Reason For Monitoring
AF Management

Clinical Context:
None

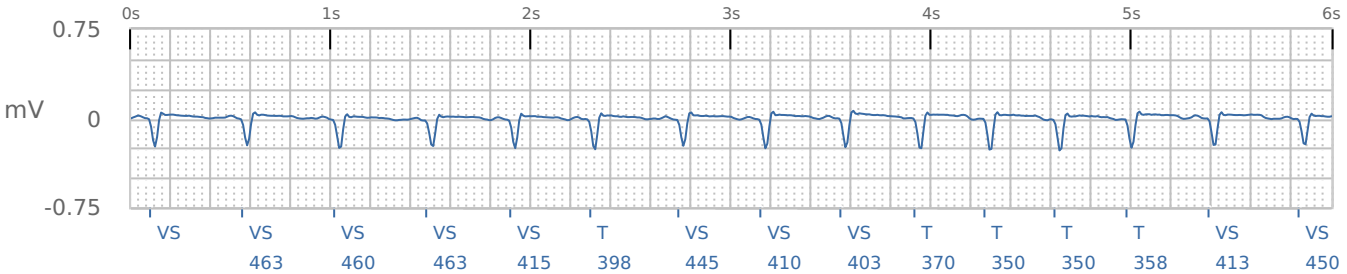
Event	Description	Date/Time	Duration	Rate	Assessment
T-181	Tachy (SVT)	Nov 29, 2020 08:07 PST	14 s	Avg 160 bpm Max 169 bpm	Not Assessed

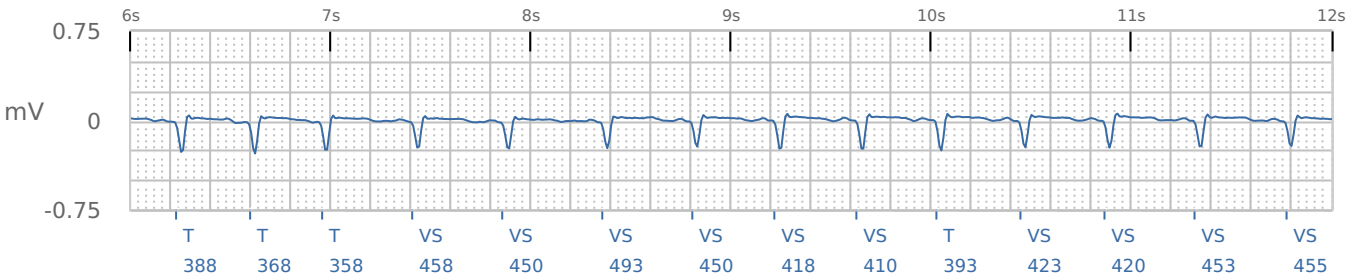
Tachy Settings

Rate 150 bpm
Duration 5 s
Response Less
Morphology Assessment On



S-ECG displayed at 25mm per second

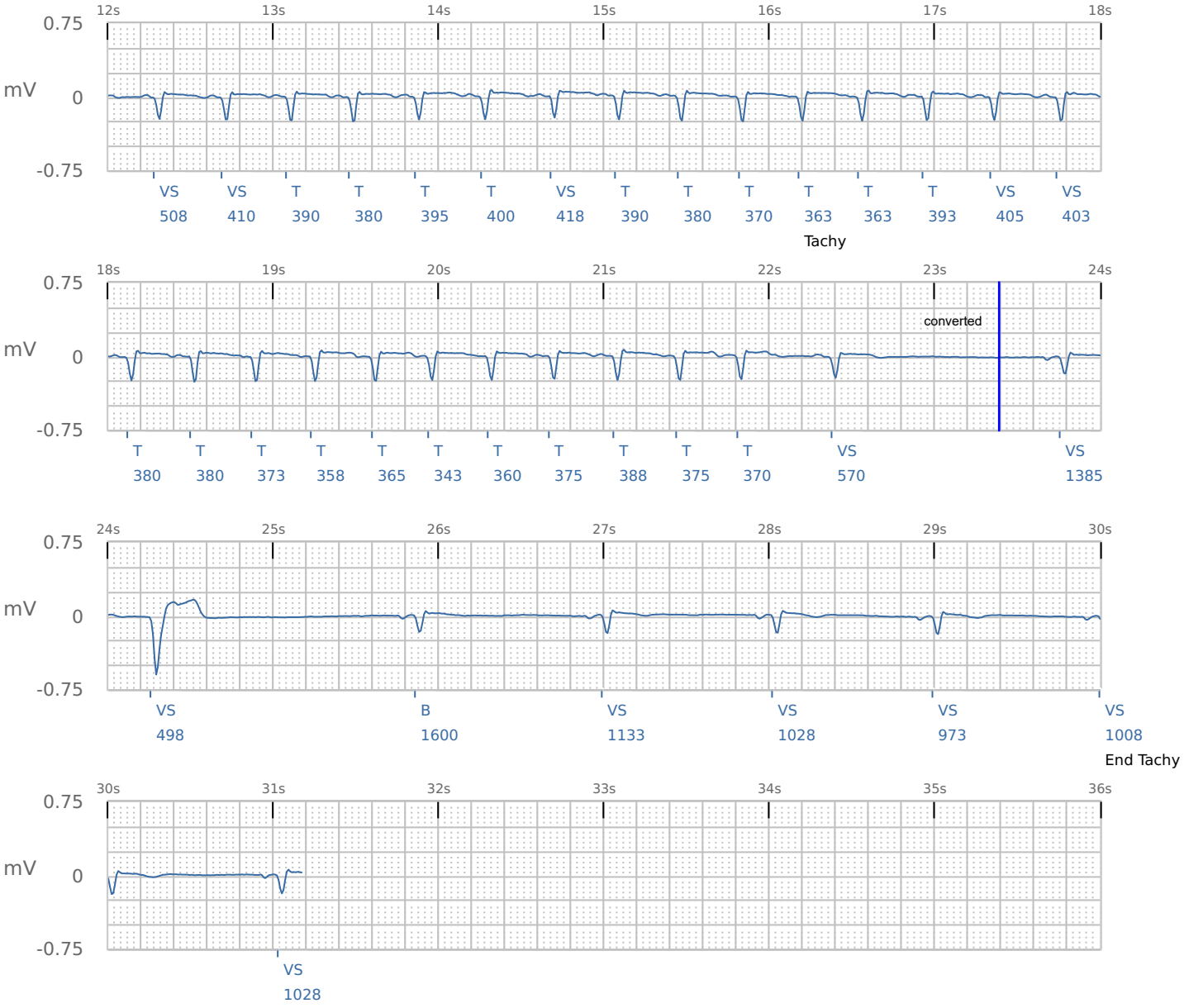




Comments & Interventions

Signature

Date



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ATRIAL TACHYCARDIA EVENT REPORT

PATIENT MONITORED FOR:

Suspected AF

DETAILS:

Sustained AT with regular V to V rhythm and consistent rate

- Atrial rate of 155 bpm during the 10 hour and 16 minute AT episode.
- AT settings were programmed to nominal.

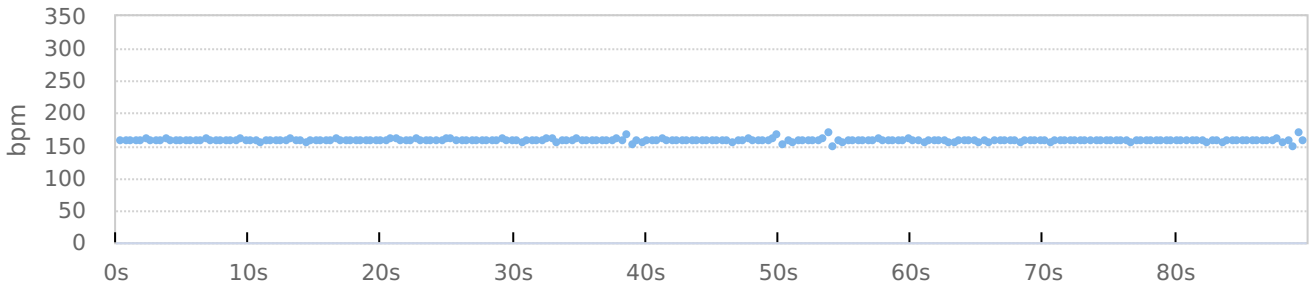
HOME

Reason For Monitoring
Suspected AF

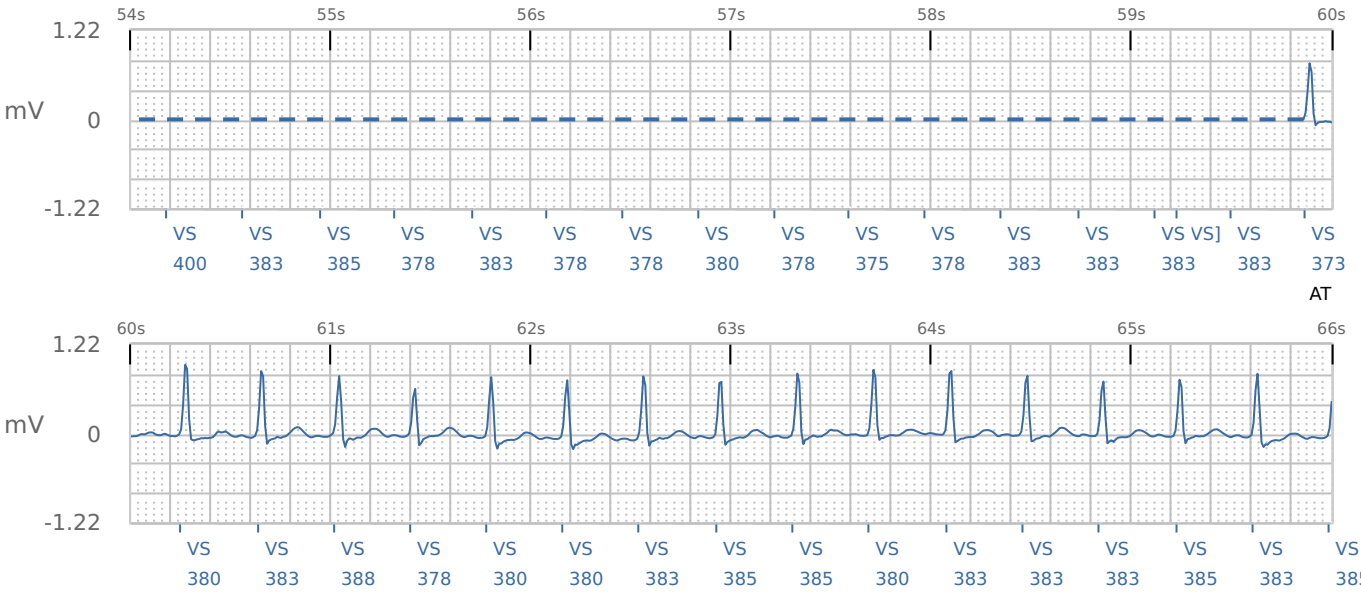
Clinical Context:
None

Event	Description	Date/Time	Duration	Rate	Assessment
AT-10	AT	Aug 04, 2020 09:18 EDT	10 h 16 m	Avg 145 bpm	Not Assessed

AT Settings Rate 110 bpm
Duration 4 hrs



S-ECG displayed at 25mm per second

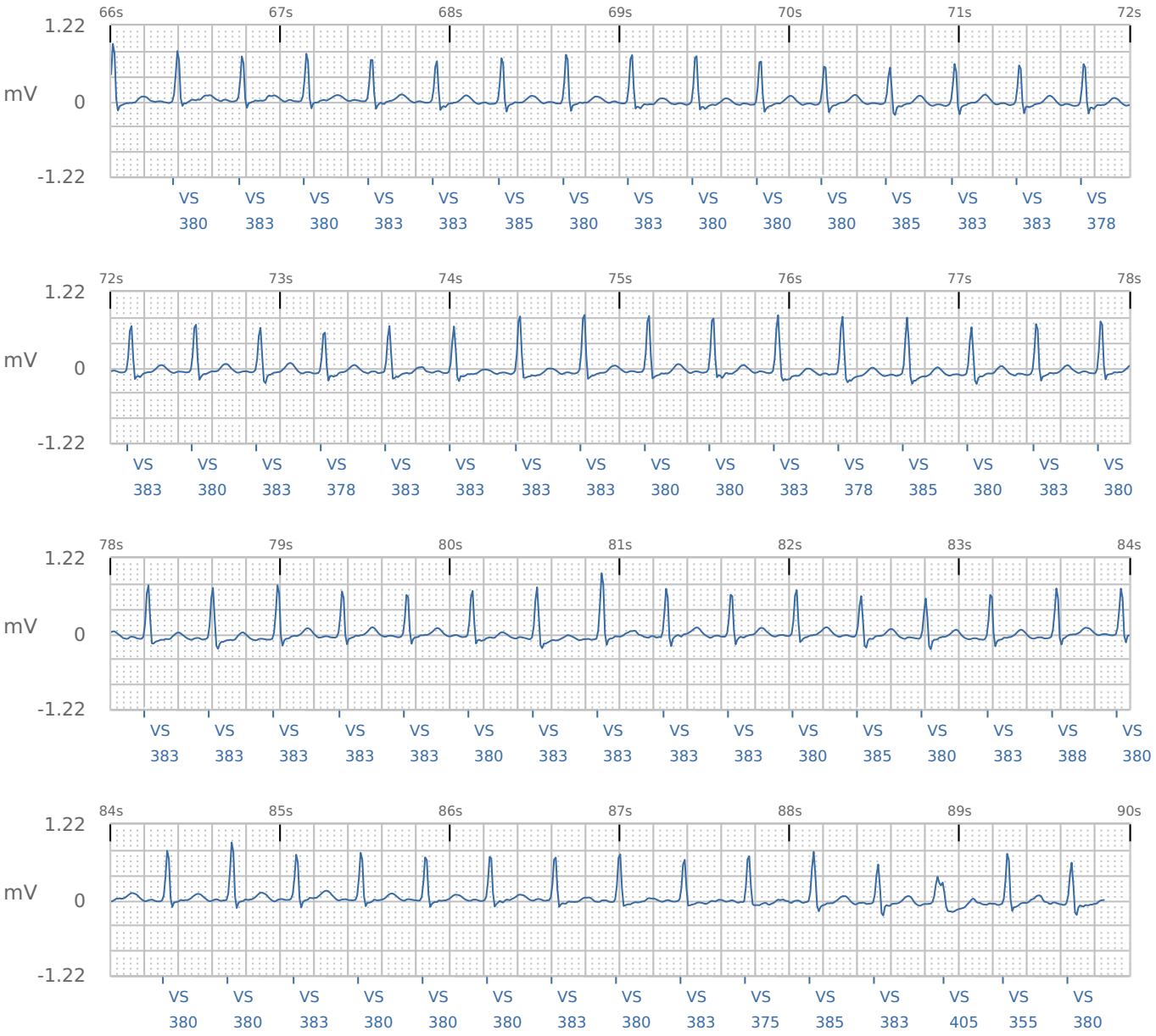


Comments & Interventions

Signature

Date

	ID:		Monitoring: Suspected AF



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BRADYCARDIA EVENT REPORT

PATIENT MONITORED FOR:

Cryptogenic Stroke

DETAILS:

P-waves during brady event

- At 11:34AM, bradycardia event with an average rate of 40 bpm over the 12 second duration of the event.
- P-waves are visible throughout the event.

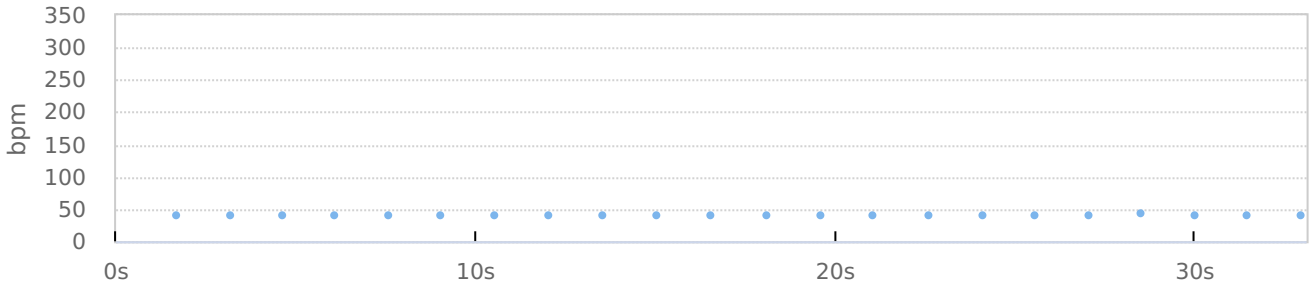
HOME

Reason For Monitoring
Cryptogenic Stroke

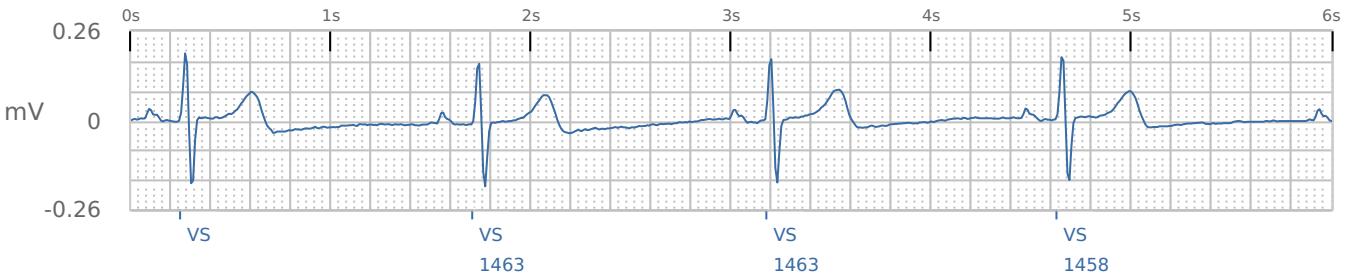
Clinical Context:
None

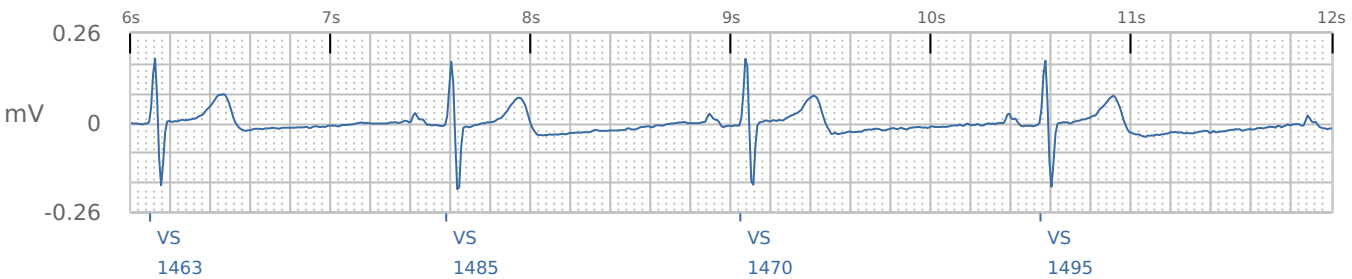
Event	Description	Date/Time	Duration	Rate	Assessment
B-1	Brady	Jul 12, 2020 11:34 EDT	12 s	Avg 40 bpm	Appropriate

Brady Settings Duration 1 s
Rate 40 bpm



S-ECG displayed at 25mm per second





Comments & Interventions

Signature

Date

	ID:		Monitoring: Cryptogenic Stroke

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BRADYCARDIA EVENT REPORT

PATIENT MONITORED FOR:

Cryptogenic Stroke

DETAILS:

2:1 HB during brady event

- At 9:11PM, bradycardia event with an average rate of 37 bpm over the 5 second duration of the event.
- Clinic entered “2:1 HB” in the notes section of the event report header.
- Starting at 19 seconds (report page 2), P-waves can be seen in support of a 2:1 HB during the brady event.
- R-waves are clipped as the clinic zoomed in on the S-ECG to see p-waves.

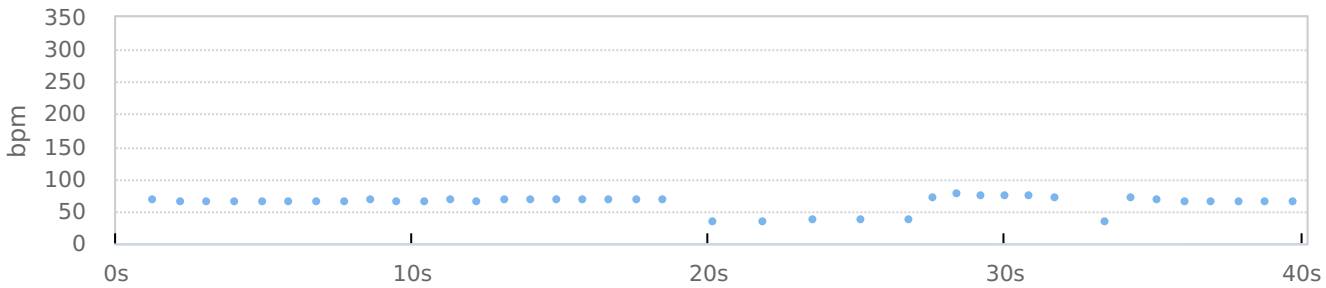
HOME

Reason For Monitoring
Cryptogenic Stroke

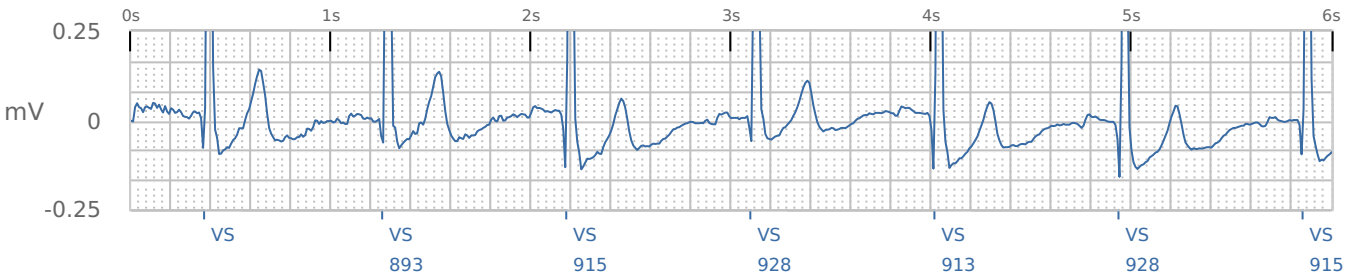
Clinical Context:
None

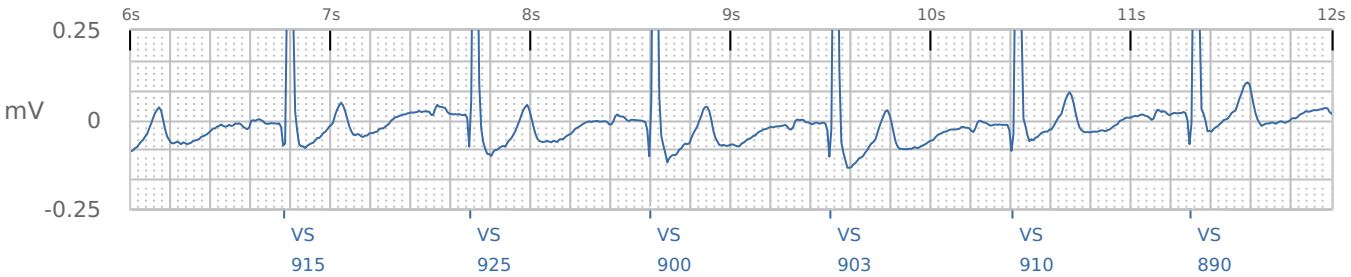
Event	Description	Date/Time	Duration	Rate	Assessment
B-1	Brady	Aug 12, 2020 21:11 MDT	5 s	Avg 37 bpm	Appropriate
			2:1 HB, clinic alerted		

Brady Settings Duration 1 s
Rate 40 bpm



S-ECG displayed at 25mm per second



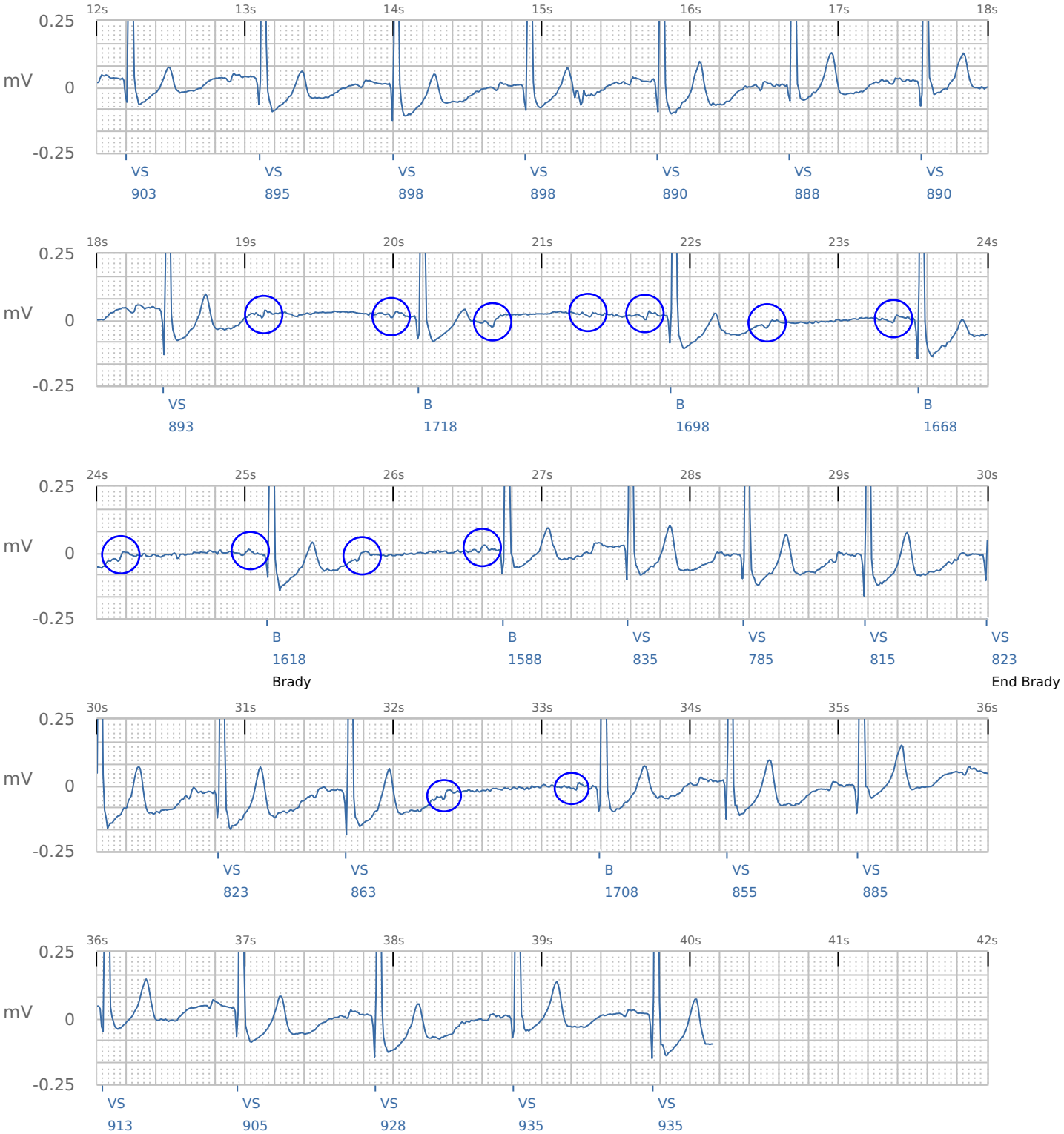


Comments & Interventions

Signature

Date

Monitoring: **Cryptogenic Stroke**



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PRESENTING

PATIENT MONITORED FOR:

Cryptogenic Stroke

DETAILS:

Presenting strip with P-waves

HOME

ID:
Gender:
DOB:
Phone:
Clinic:
Latest Device Transmission:

Device: M301 LUX-Dx™
Implant Date:
Implanted By:
Followed By:
Patient Group:

OK

Last: Dec 17, 2020

Next: Dec 31, 2020
Last: Nov 30, 2020

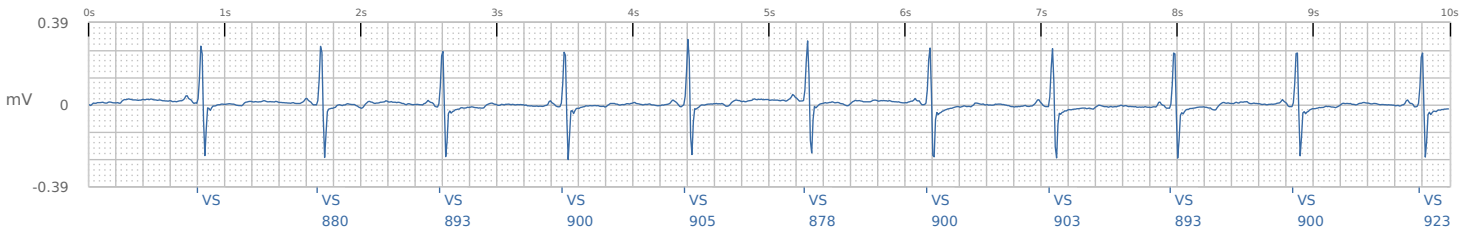
Reason For Monitoring
Cryptogenic Stroke

Clinical Context:
None

My Alerts

No event alerts since last dismissed

Presenting S-ECG (Dec 16, 2020 07:59 EST) Avg Rate: 67 bpm



Event Logbook

There are no events available.

Counters and Settings

	Recent Oct 29, 2020 - Nov 30, 2020 *33 day(s)*	Previous Sep 22, 2020 - Oct 29, 2020 *38 day(s)*	Lifetime Jul 14, 2020 - Nov 30, 2020 *140 day(s)*	Programming Summary Nov 30, 2020
Symptom (Total)	0	0	0	Off
Tachy	0	0	0	≥ 150 bpm, > 5 s
Pause	0	0	0	≥ 4.5 s
Brady	0	0	0	< 30 bpm, > 2 s
AT	0	0	0	≥ 110 bpm, ≥ 2 hrs
AF	0	0	0	≥ 2 min
Sensing Parameters				Sensitivity: 0.037 mV Blank After Sense: 160 ms

Comments & Interventions

Signature

Date

	ID:	DOB:	Monitoring: **Cryptogenic Stroke**

AF Overview

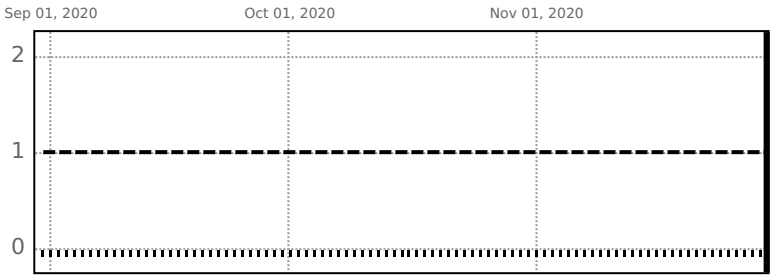
AF Burden

Threshold

Nov 30, 2020

0.0

hour(s)



V Rate during AF

Max

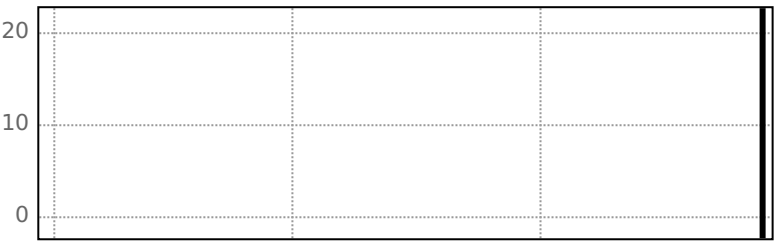
Mean

Nov 29, 2020

N/R

N/R

bpm



	Recent	**Previous**
	Oct 29, 2020 - Nov 30, 2020 *33 day(s)*	Sep 22, 2020 - Oct 29, 2020 *38 day(s)*
Total Time in AF	0 % (0 m)	0 % (0 m)
# of AF Events	0	0
Longest AF	N/A	N/A

ID:
Gender:
DOB:
Phone:
Clinic:

Device: M301 LUX-Dx™
Implant Date:
Implanted By:
Followed By:
Patient Group:

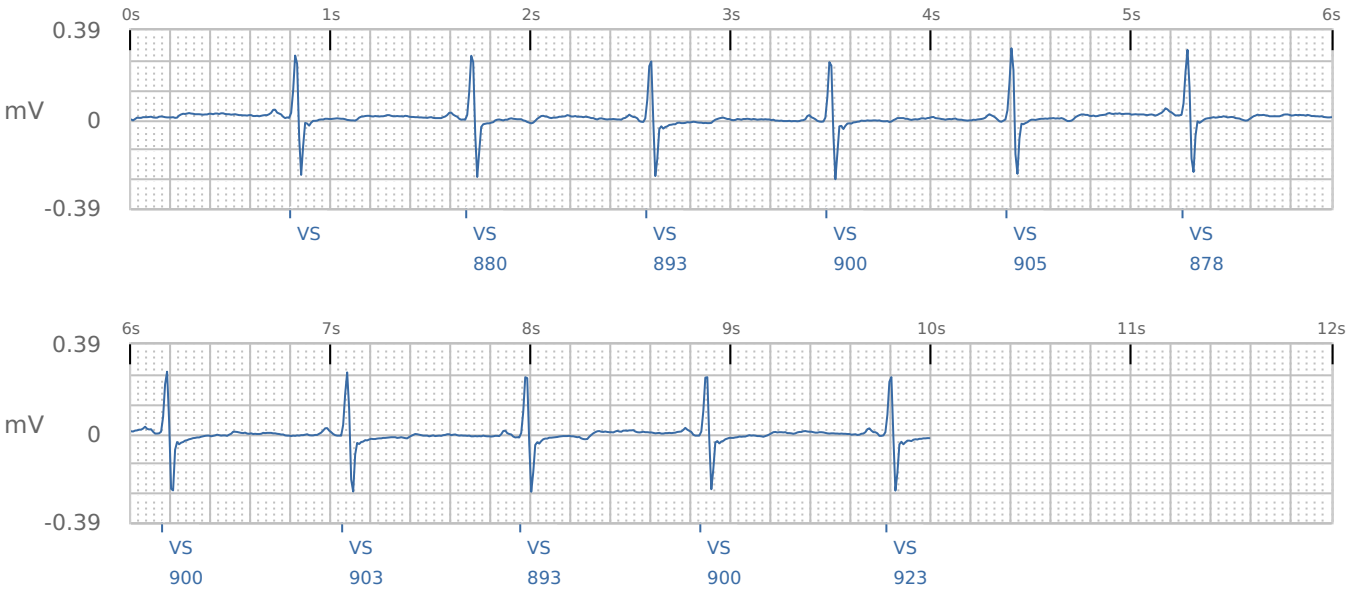
Reason For Monitoring
Cryptogenic Stroke

Clinical Context:
None

Date/Time: Dec 16, 2020 07:59 EST

Avg Rate: 67 bpm

S-ECG displayed at 25mm per second



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PRESENTING

PATIENT MONITORED FOR:

Cryptogenic Stroke

DETAILS:

P-waves in presenting strip for a patient with runs of AF

- Visible P-waves in the presenting S-ECG could make adjudicating the AF events easier
- 69 AF events that were ≥ 2 minutes; 1% AF burden.
- The average heart rate is included in the longest AF detected episode.
- For the date highlighted (Dec 16) by the black bar on the report, the rate plot during AF shows the patient's mean V Rate during AF was relatively controlled, 76 bpm and the max was 104.

HOME

ID:
Gender:
DOB:
Phone:
Clinic:

Device: M301 LUX-Dx™
Implant Date:
Implanted By:
Followed By:
Patient Group:

Latest Device Transmission: Dec 17, 2020 00:57 EST

OK

Last: Dec 17, 2020

Next: Dec 31, 2020
Last: Nov 30, 2020

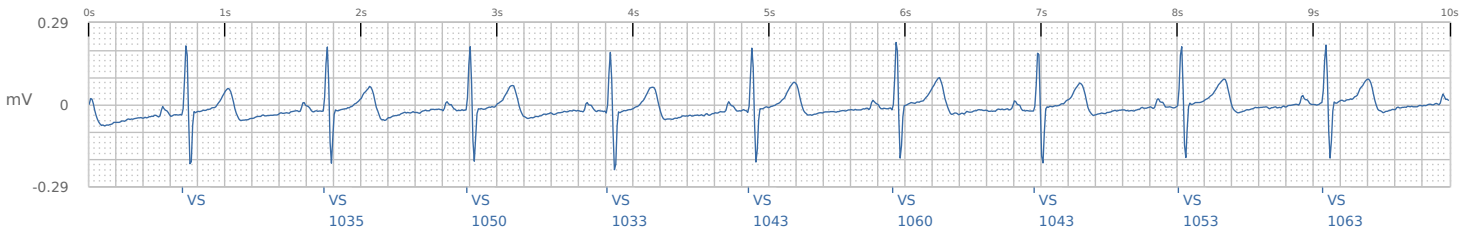
Reason For Monitoring
Cryptogenic Stroke

Clinical Context:
None

My Alerts

No event alerts since last dismissed

Presenting S-ECG (Dec 16, 2020 07:59 EST) Avg Rate: 57 bpm



Event Logbook

There are no events available.

Counters and Settings

	Recent Nov 30, 2020 - Dec 17, 2020 *18 day(s)*	Previous Sep 08, 2020 - Nov 30, 2020 *84 day(s)*	Lifetime Jul 07, 2020 - Dec 17, 2020 *164 day(s)*	Programming Summary Dec 17, 2020
Symptom (Total)	0	0	1	Off
Tachy	0	0	0	≥ 150 bpm, > 5 s
Pause	0	0	0	≥ 4.5 s
Brady	0	0	1	< 30 bpm, > 2 s
AT	0	0	0	≥ 110 bpm, ≥ 2 hrs
AF	69	69	175	≥ 2 min
Sensing Parameters				Sensitivity: 0.037 mV Blank After Sense: 160 ms

Comments & Interventions

Signature

Date

	ID:	DOB:	Monitoring: Cryptogenic Stroke

AF Overview

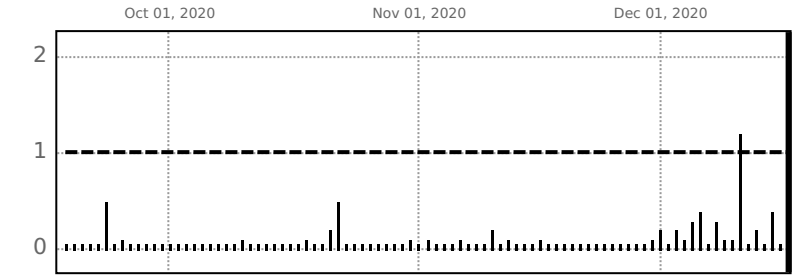
AF Burden

Threshold

Dec 17, 2020

0.0

hour(s)



V Rate during AF

Max

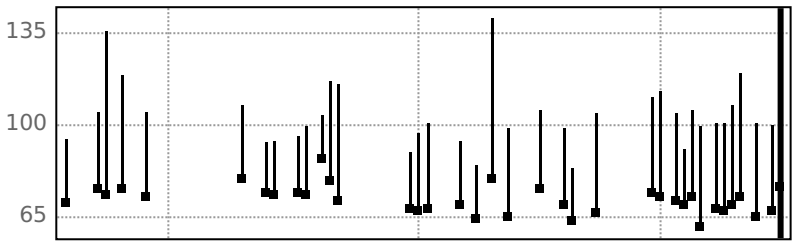
Mean

Dec 16, 2020

104

76

bpm



	Recent Nov 30, 2020 - Dec 17, 2020 *18 day(s)*	Previous Sep 08, 2020 - Nov 30, 2020 *84 day(s)*
Total Time in AF	1 % (3 h 40 m)	< 1 % (2 h 46 m)
# of AF Events	69	69
Longest AF	16 m (Avg 70 bpm)	10 m (Avg 69 bpm)

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CE 2797

Results from case studies are not necessarily predictive of results in other cases. Results in other cases may vary.