

Standup Analysis Report

Analysis of 'Standup Waveforms' dataset

Methodology & Pathophysiological Analysis

1. Algorithmic Artifact Removal

To ensure statistical validity, raw pressure waveforms undergo a rigorous stability-based filtering process:

- Derivative Monitoring: The first derivative (dP/dt) is monitored for non-physiologic variations.
- Thresholding: Spikes exceeding >1000 mmHg/s (1.5 mmHg/sample) are flagged as artifacts.
- Reconstruction: identified artifacts are excised and bridged via linear interpolation.

2. Pathophysiological Insights

High-Frequency Artifacts (Pre-Intervention):

- A. Turbulent Flow: Critical stenosis increases Reynolds number > 4000 , causing turbulence.
- B. Venous Wall Flutter: Bernoulli effect causes aeroelastic collapse and reopening ('fremitus').

Post-Stenting Resolution:

Stenting laminarizes flow and mechanically stabilizes the vein wall, eliminating artifacts.

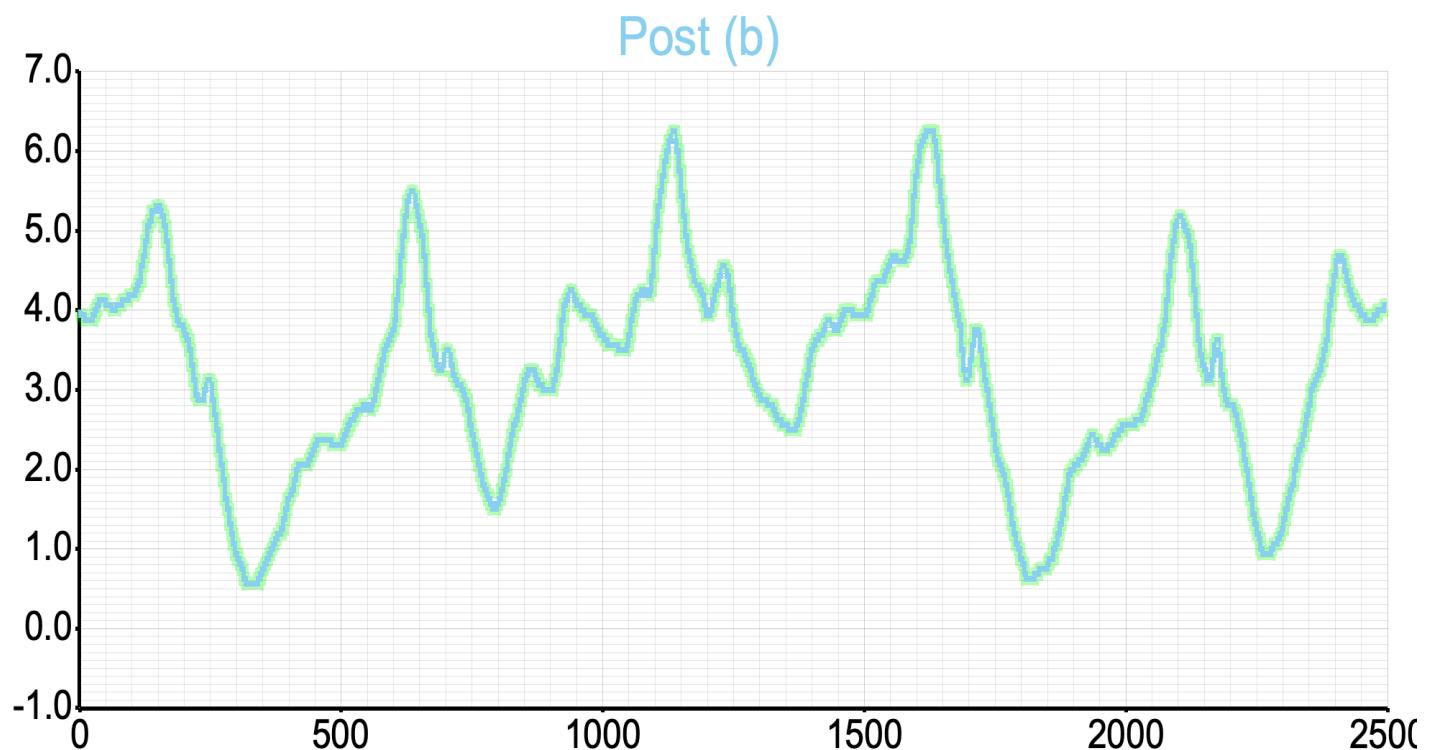
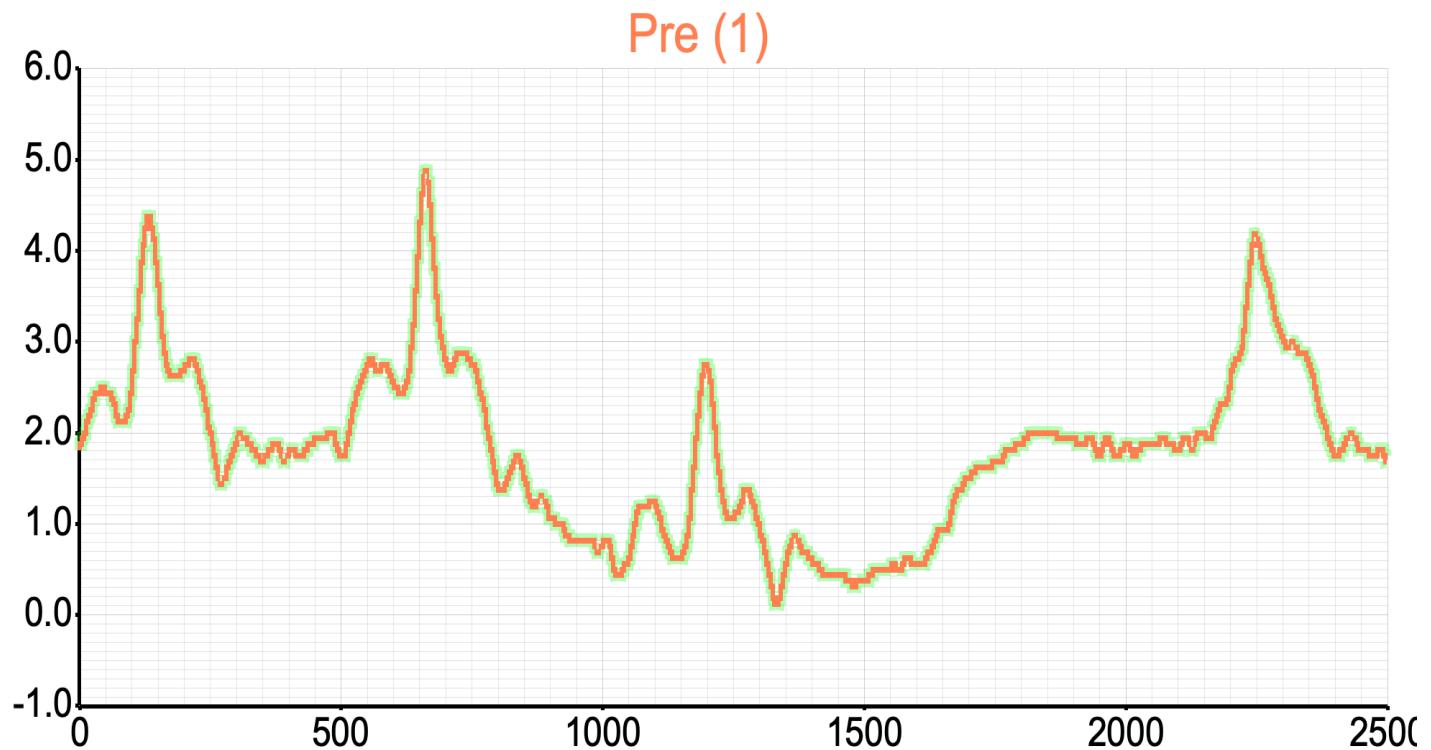
Statistical Outcomes Summary

Metric	Pre Mean	Post Mean	T-Stat
Mean Pressure (mmHg)	10.50	11.89	-0.8935
High-Freq Power	1362288.09	261230.99	2.2981
Cardiac Amplitude (mmHg)	4.62	3.46	1.8233

Statistical Summary interpretation:

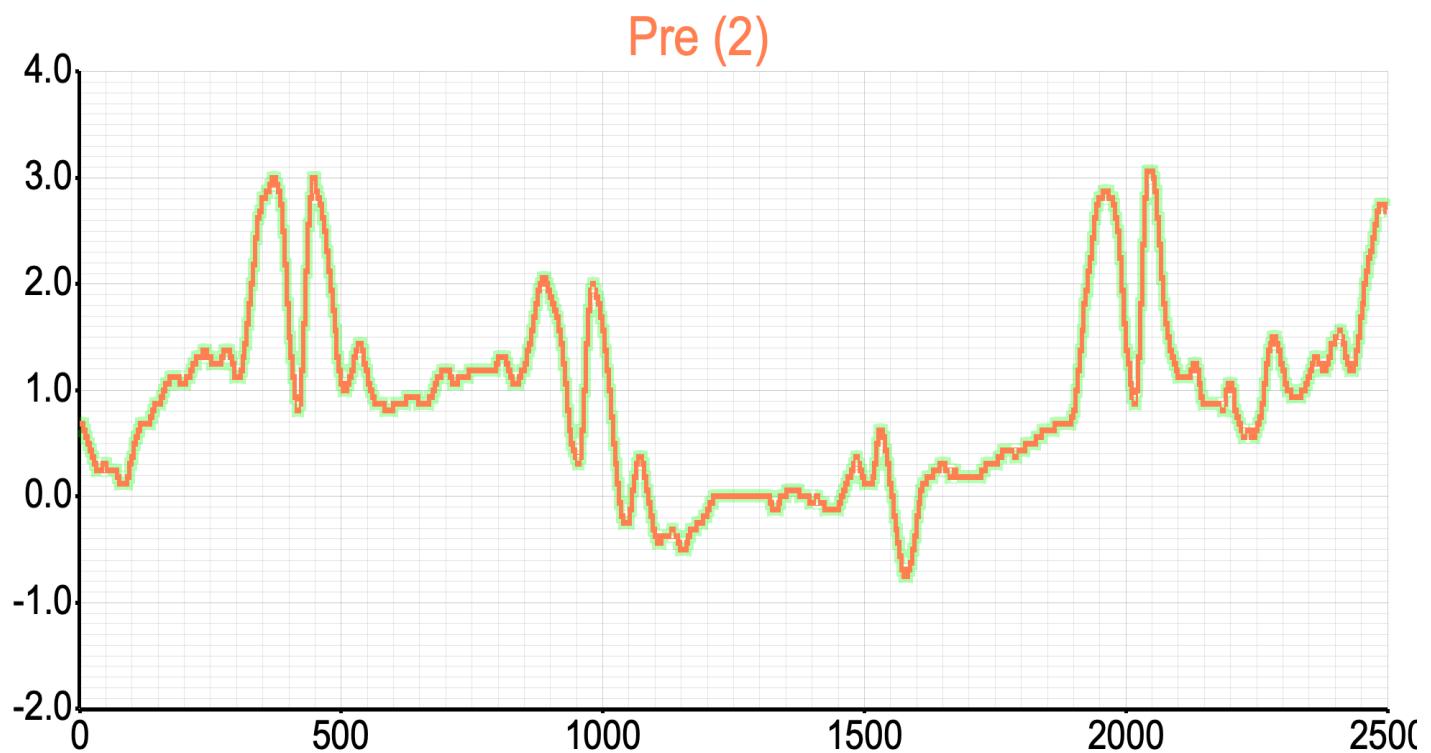
The comparison between pre-intervention and post-intervention measurements indicates significant hemodynamic improvements. The reduction in high-frequency power post-stenting strongly suggests the elimination of turbulent flow and wall flutter (fremitus), confirming the mechanical stabilization of the venous wall. Pressure normalization is observed, consistent with the restoration of laminar flow dynamics.

Patient Patient 1 - LJ - Sample 1



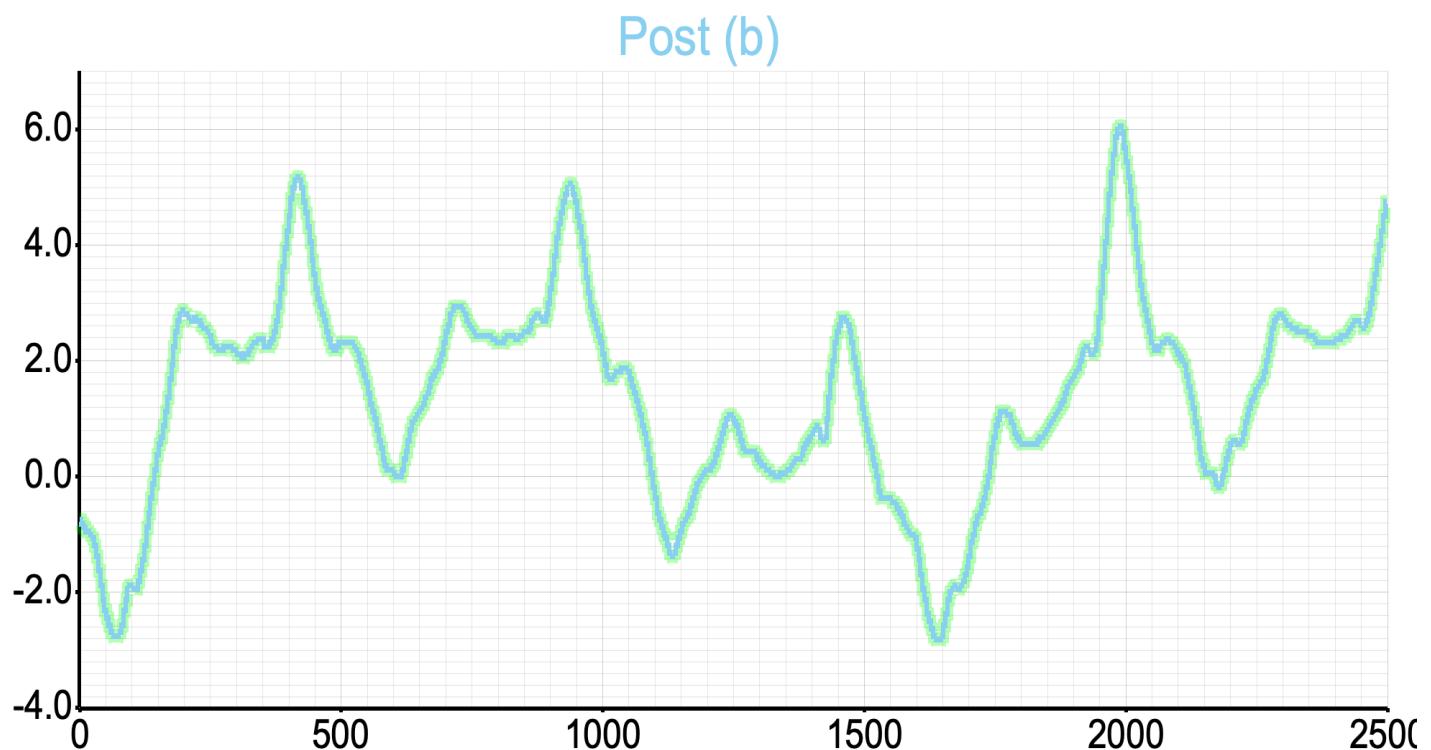
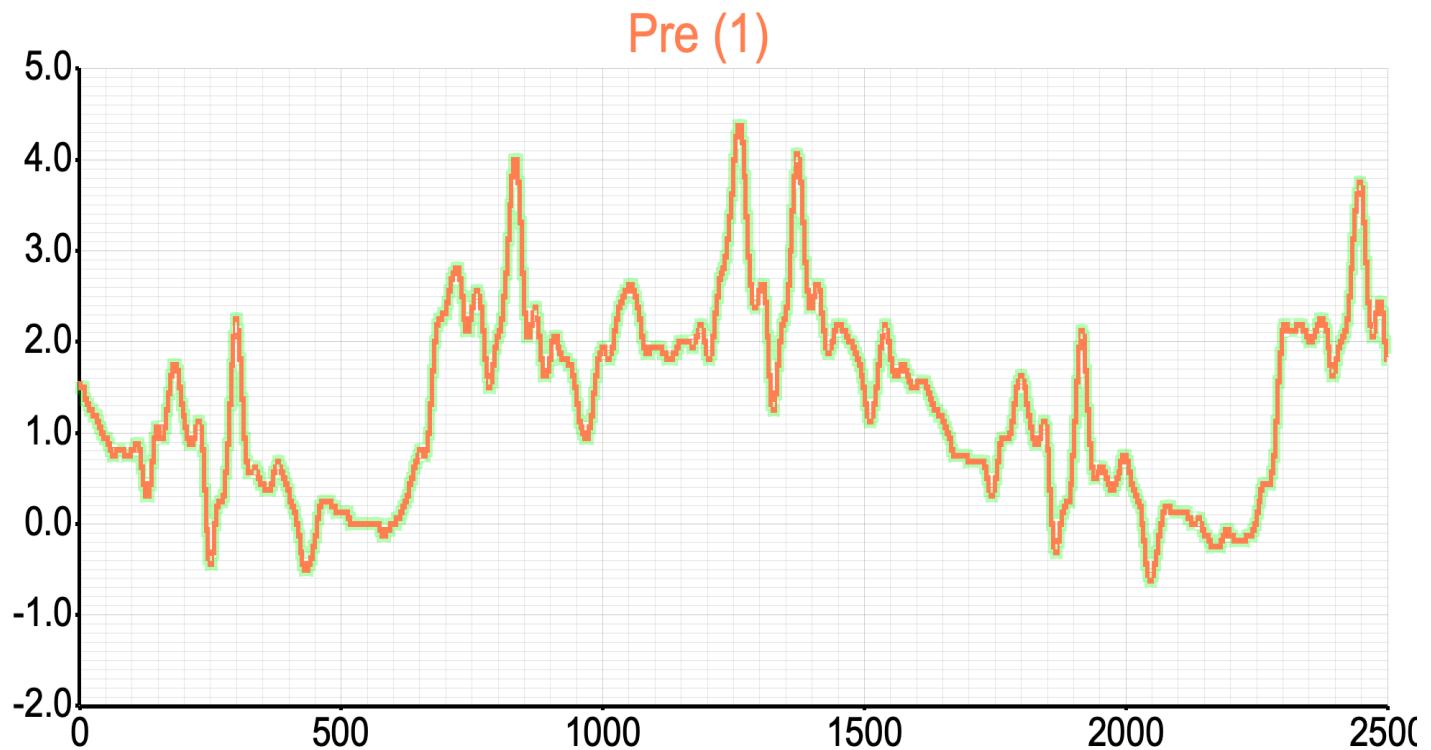
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	1.8	1.8	3.2	3.2
Cardiac Amp	3.1	3.1	4.1	4.1
High Freq Power	8141.9	8141.9	16094.5	16094.5

Patient Patient 1 - LJ - Sample 2



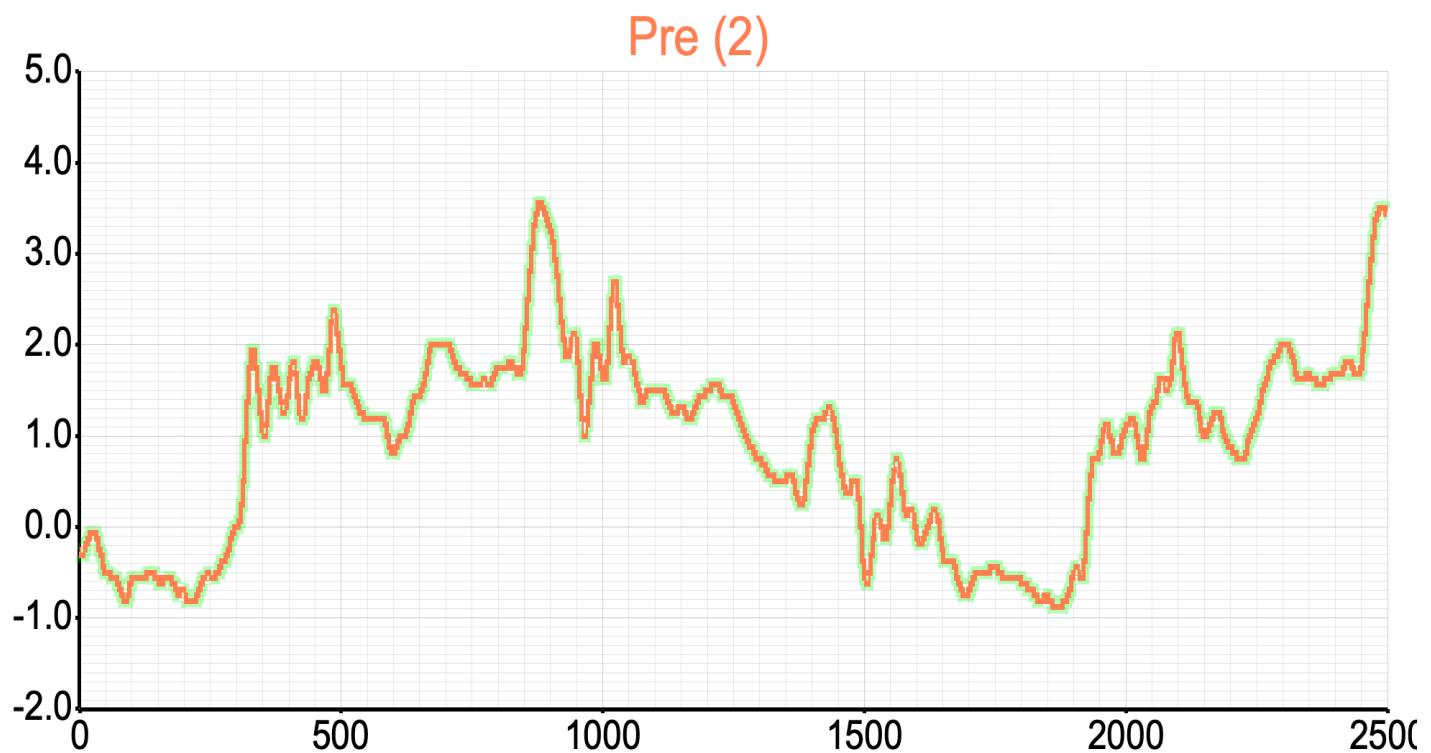
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	0.9	0.9	-	-
Cardiac Amp	2.2	2.2	-	-
High Freq Power	25515.5	25515.5	-	-

Patient Patient 1 - RJ - Sample 1



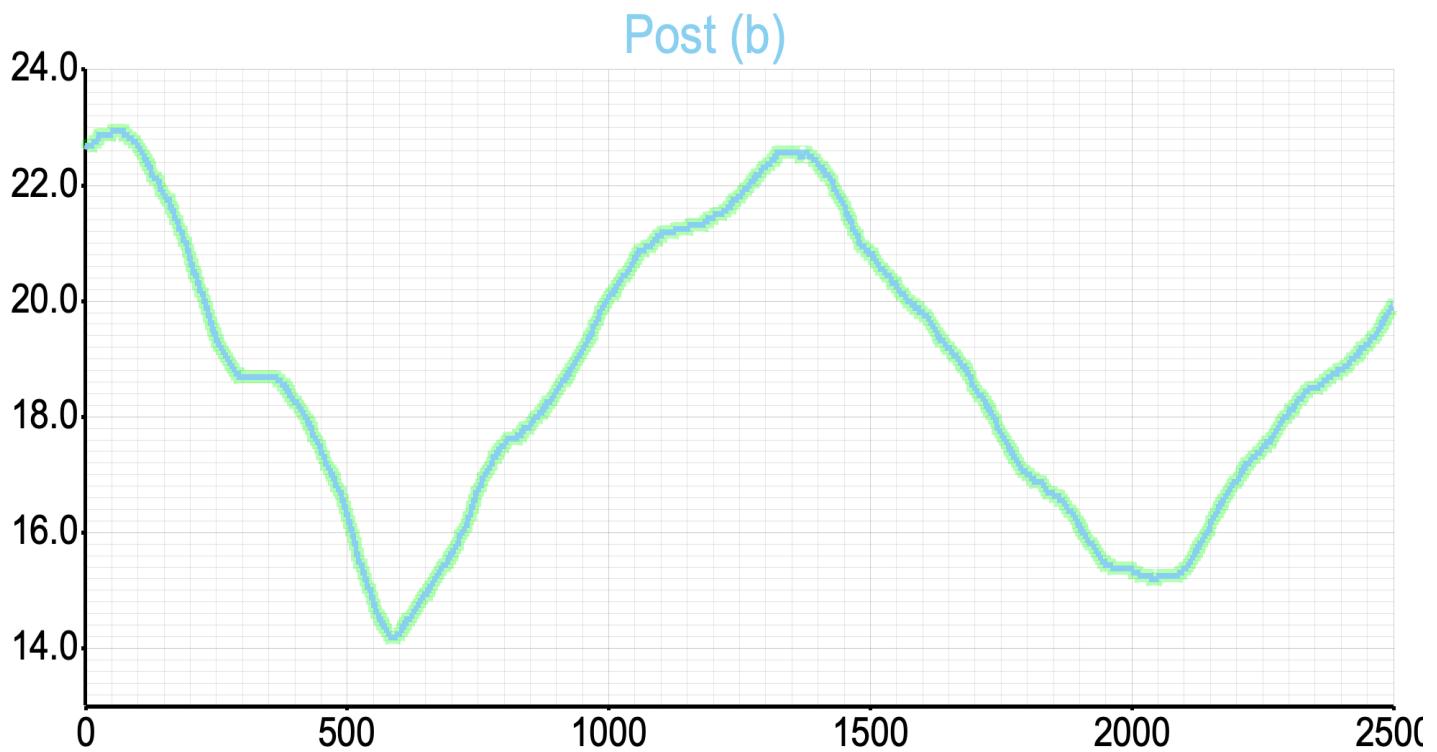
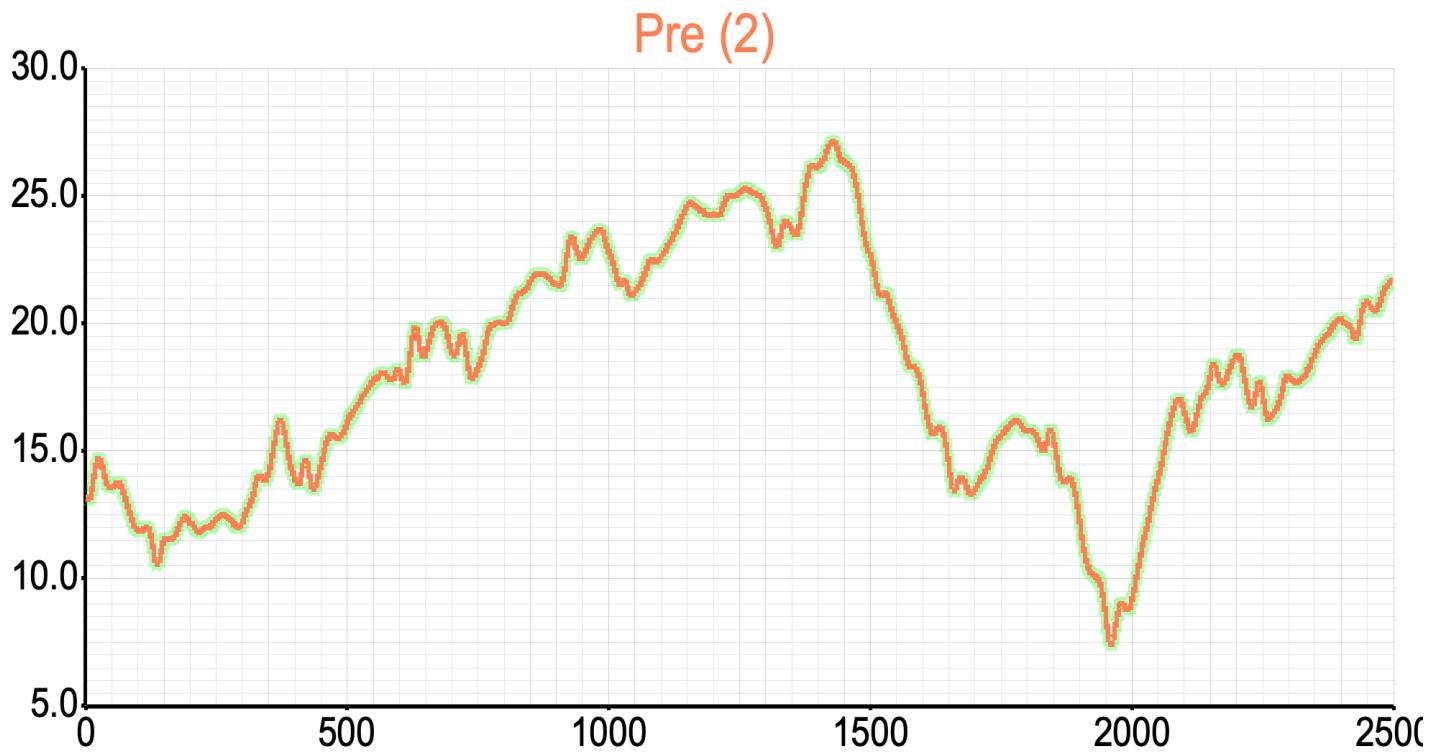
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	1.3	1.3	1.4	1.4
Cardiac Amp	3.0	3.0	6.5	6.5
High Freq Power	75871.8	75871.8	116635.6	116635.6

Patient Patient 1 - RJ - Sample 2



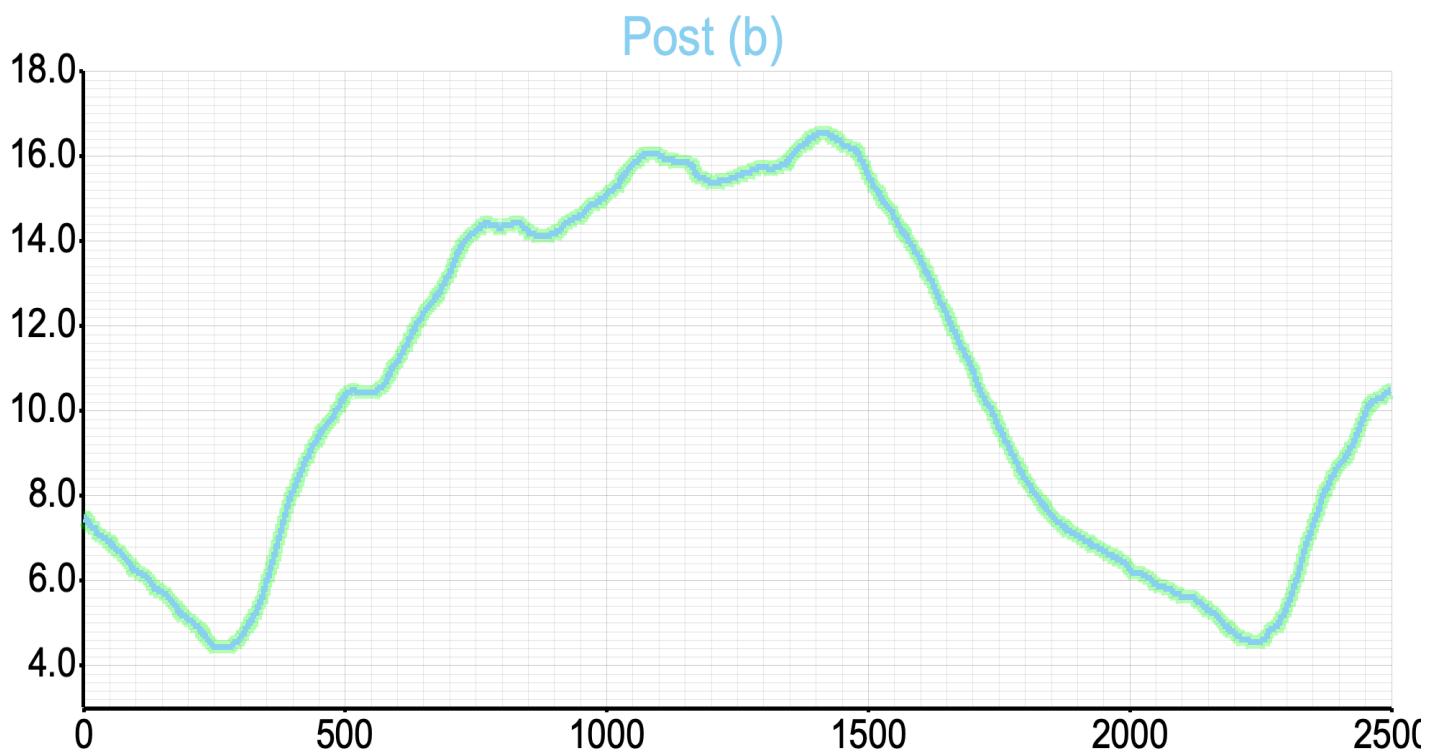
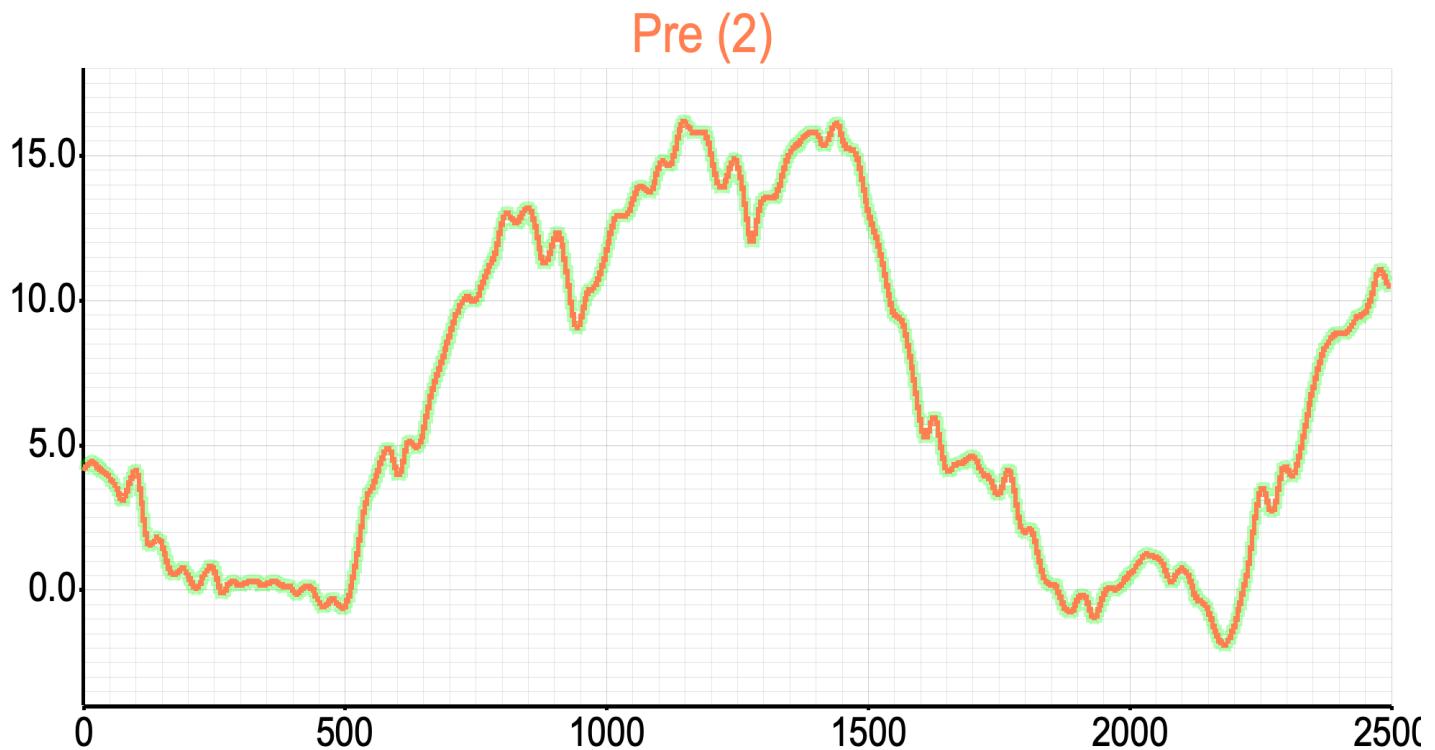
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	0.9	0.9	-	-
Cardiac Amp	2.3	2.3	-	-
High Freq Power	89875.8	89875.8	-	-

Patient Patient 2 - LJ - Sample 1



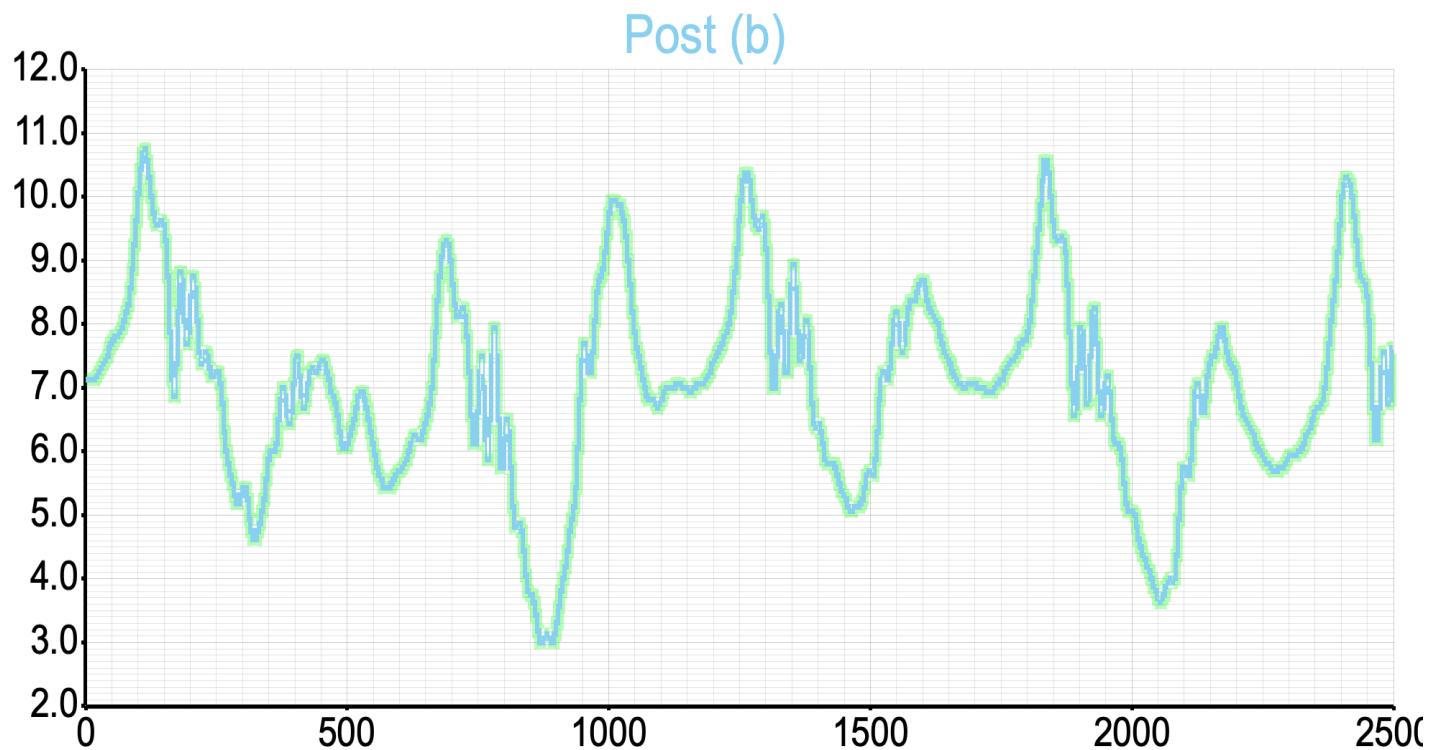
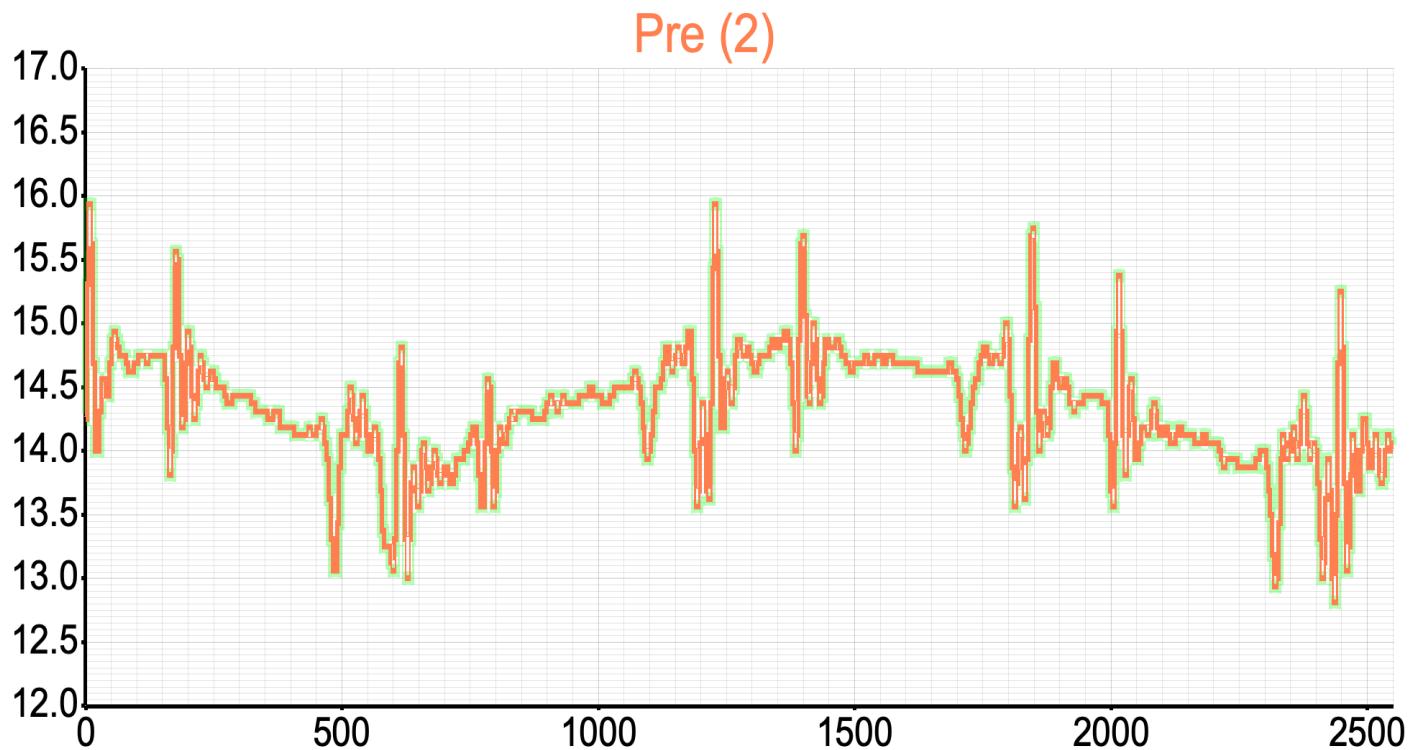
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	18.0	18.0	18.7	18.7
Cardiac Amp	8.8	8.8	3.3	3.3
High Freq Power	457035.4	457035.4	24444.0	24444.0

Patient Patient 2 - RJ - Sample 1



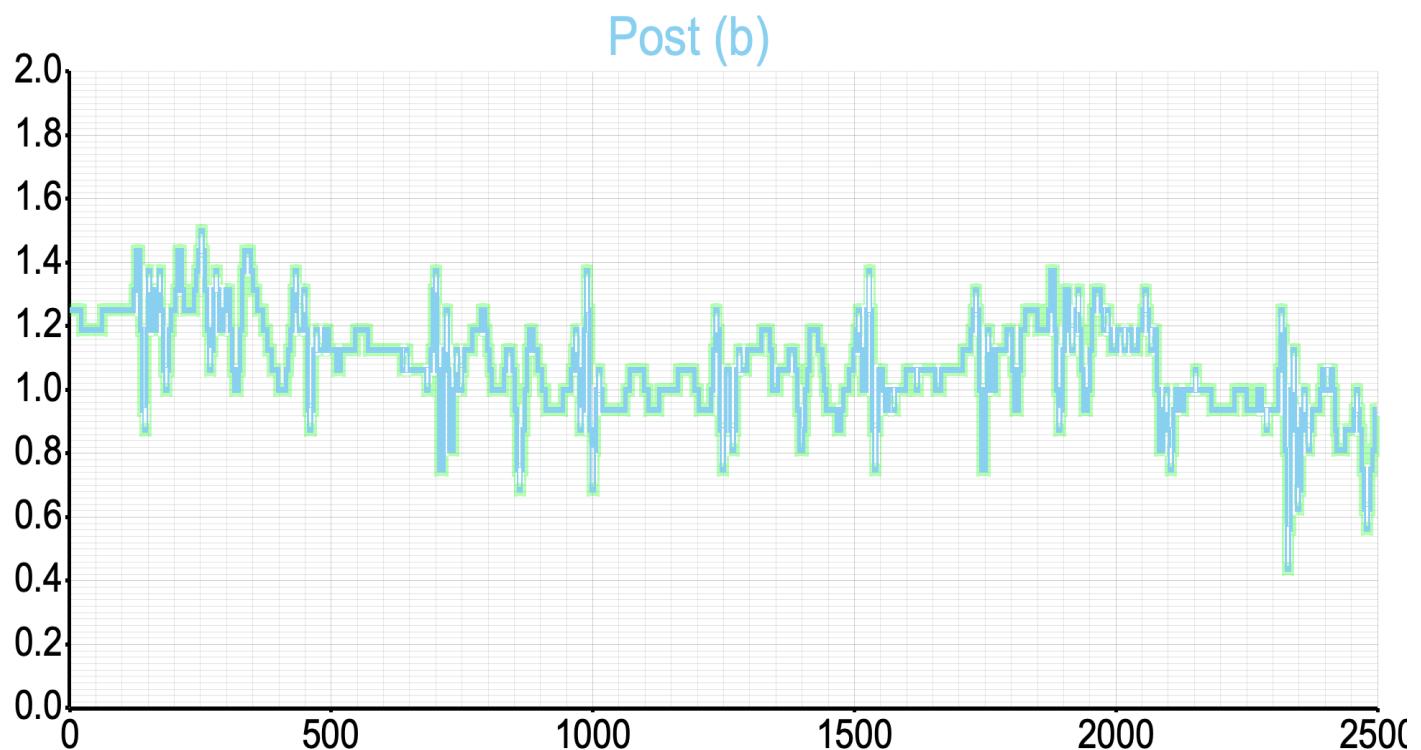
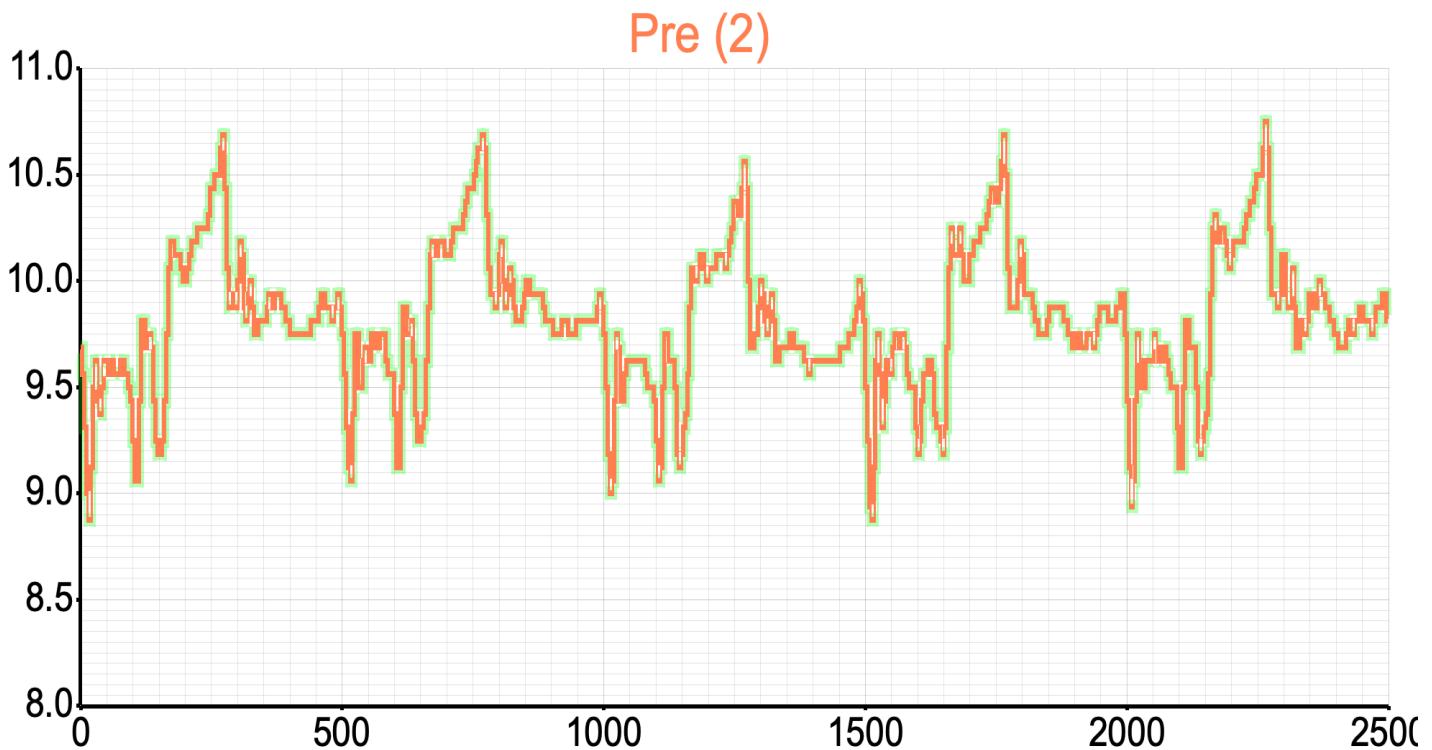
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	6.3	6.3	10.5	10.5
Cardiac Amp	4.0	4.0	2.2	2.2
High Freq Power	232078.9	232078.9	30643.2	30643.2

Patient Patient 3 - LJ - Sample 1



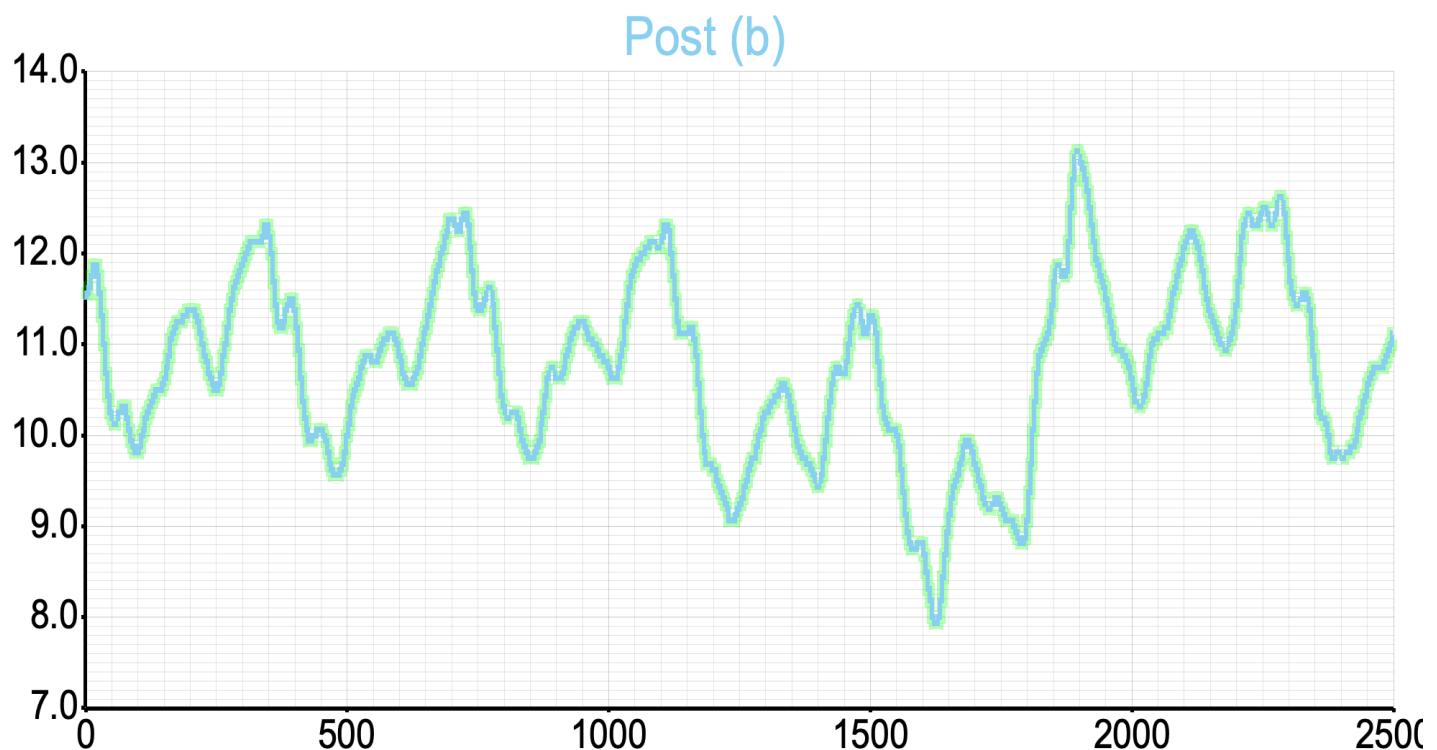
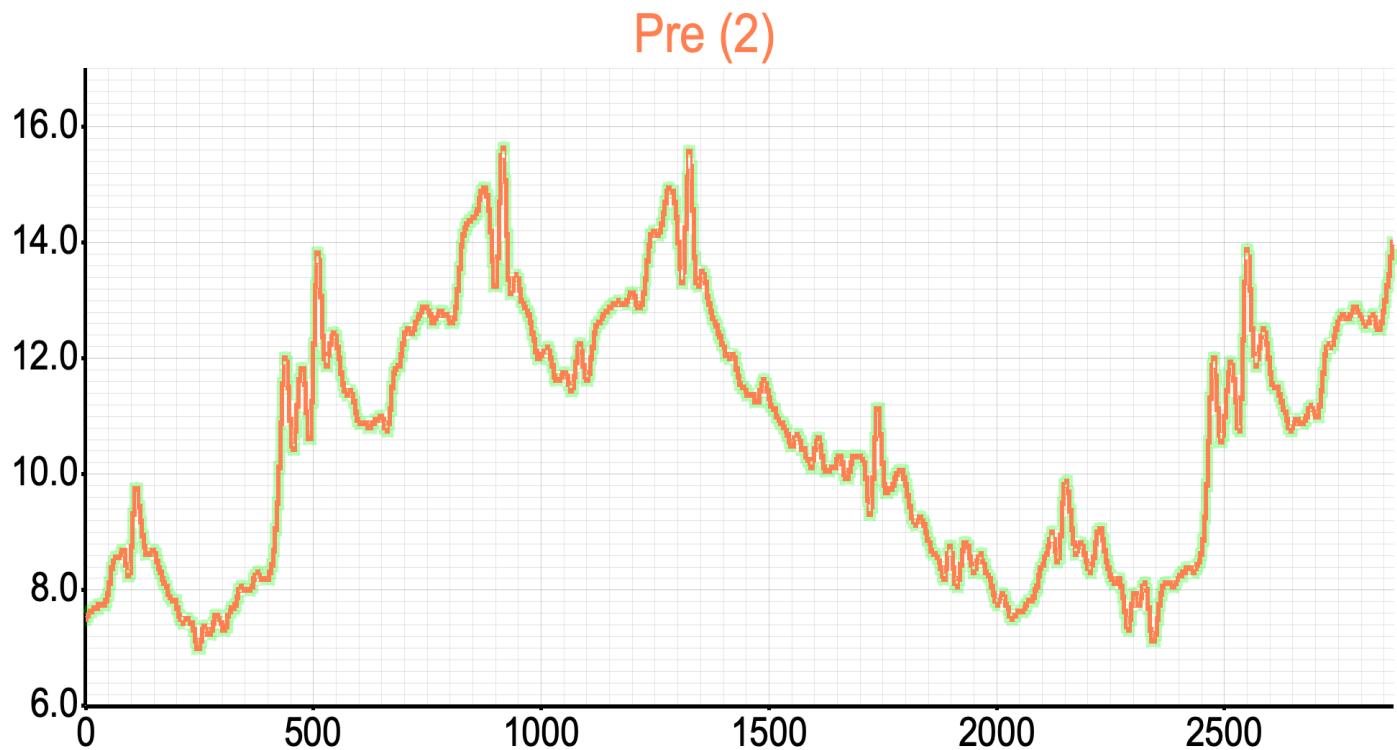
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	14.3	14.3	7.0	7.0
Cardiac Amp	2.4	2.4	6.0	6.0
High Freq Power	191134.5	191134.5	212060.0	212060.0

Patient Patient 3 - RJ - Sample 1



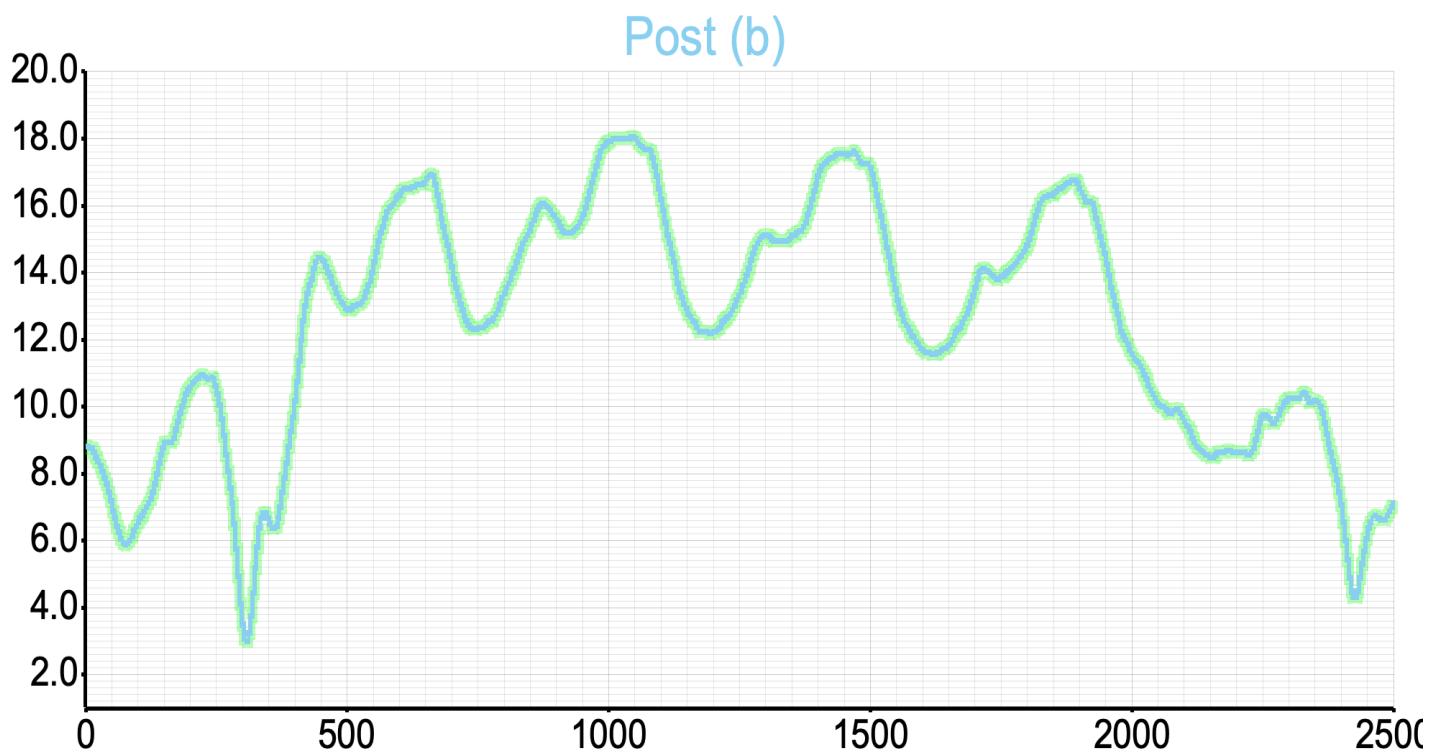
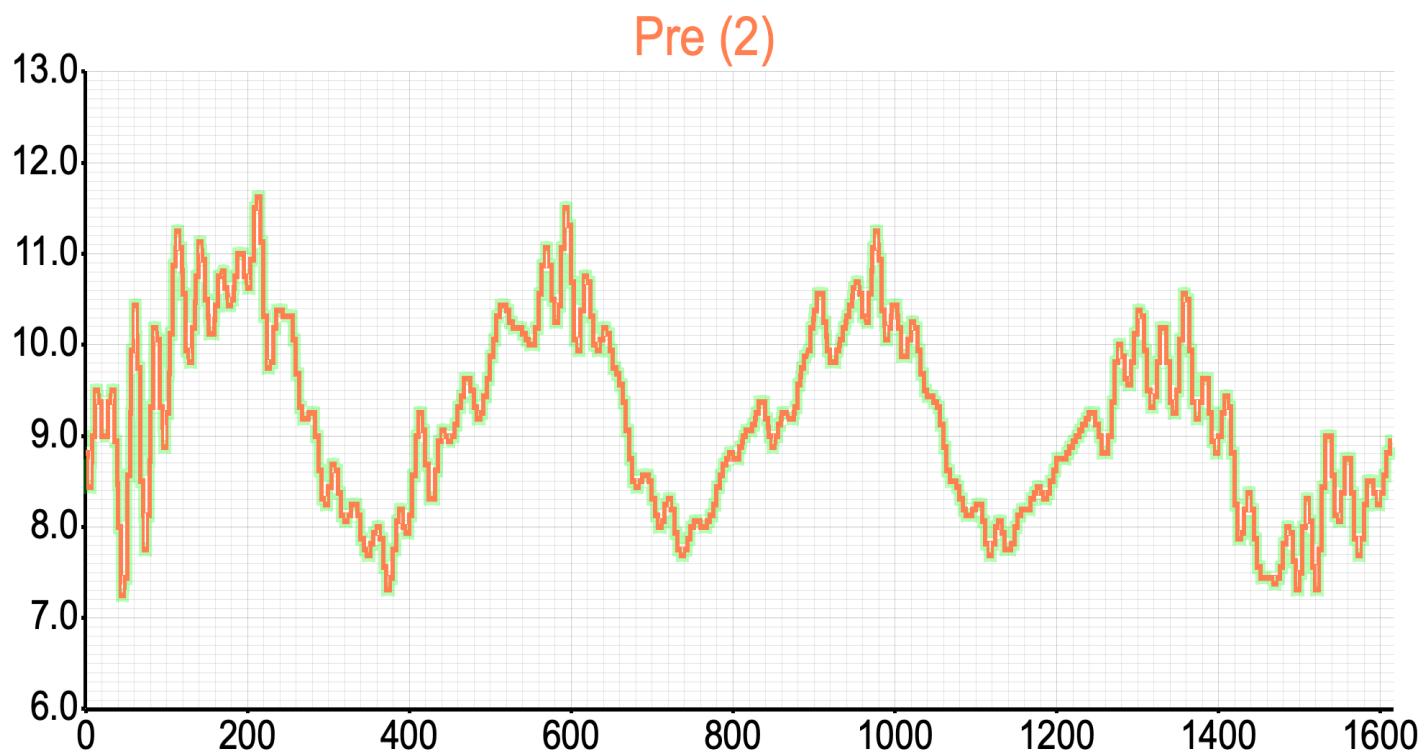
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	9.8	9.8	1.1	1.1
Cardiac Amp	1.7	1.7	0.8	0.8
High Freq Power	54064.1	54064.1	25567.7	25567.7

Patient Patient 4 - LJ - Sample 1



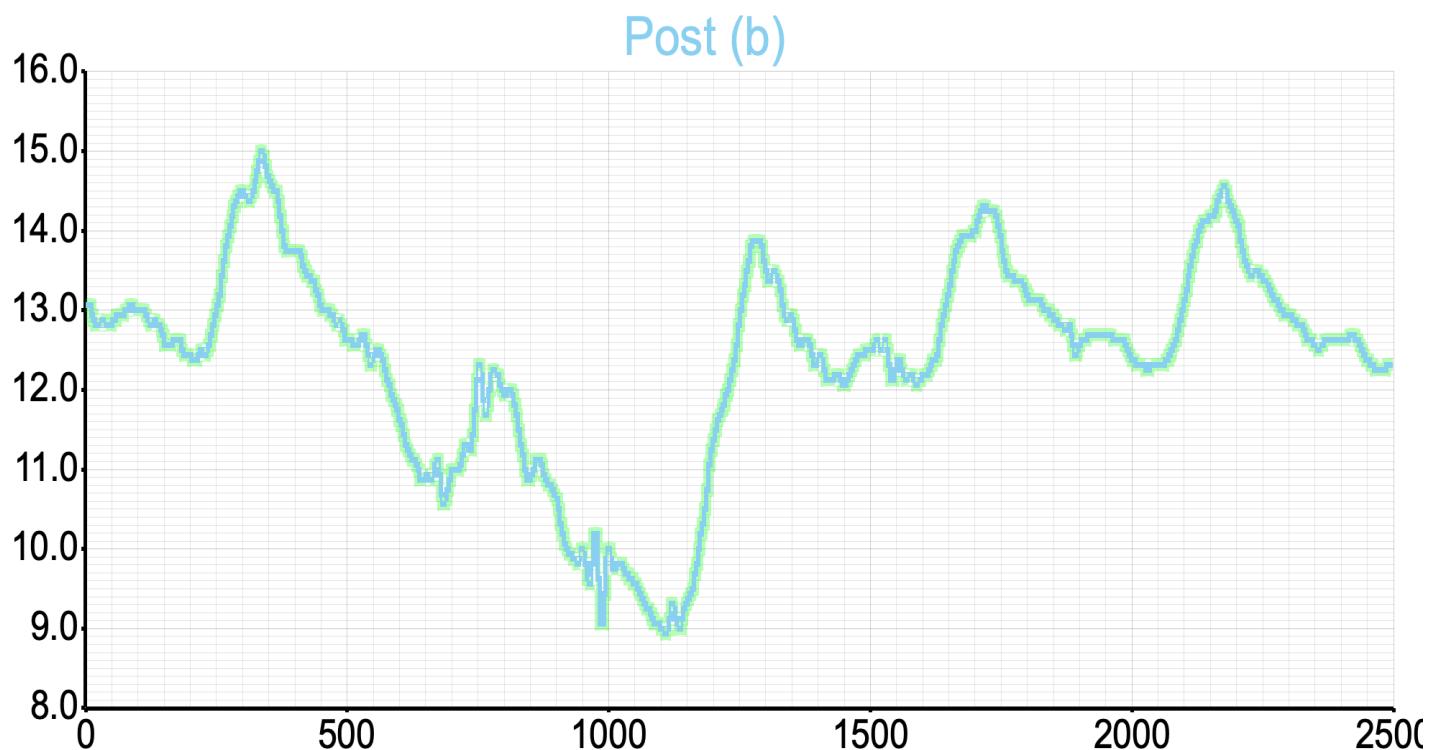
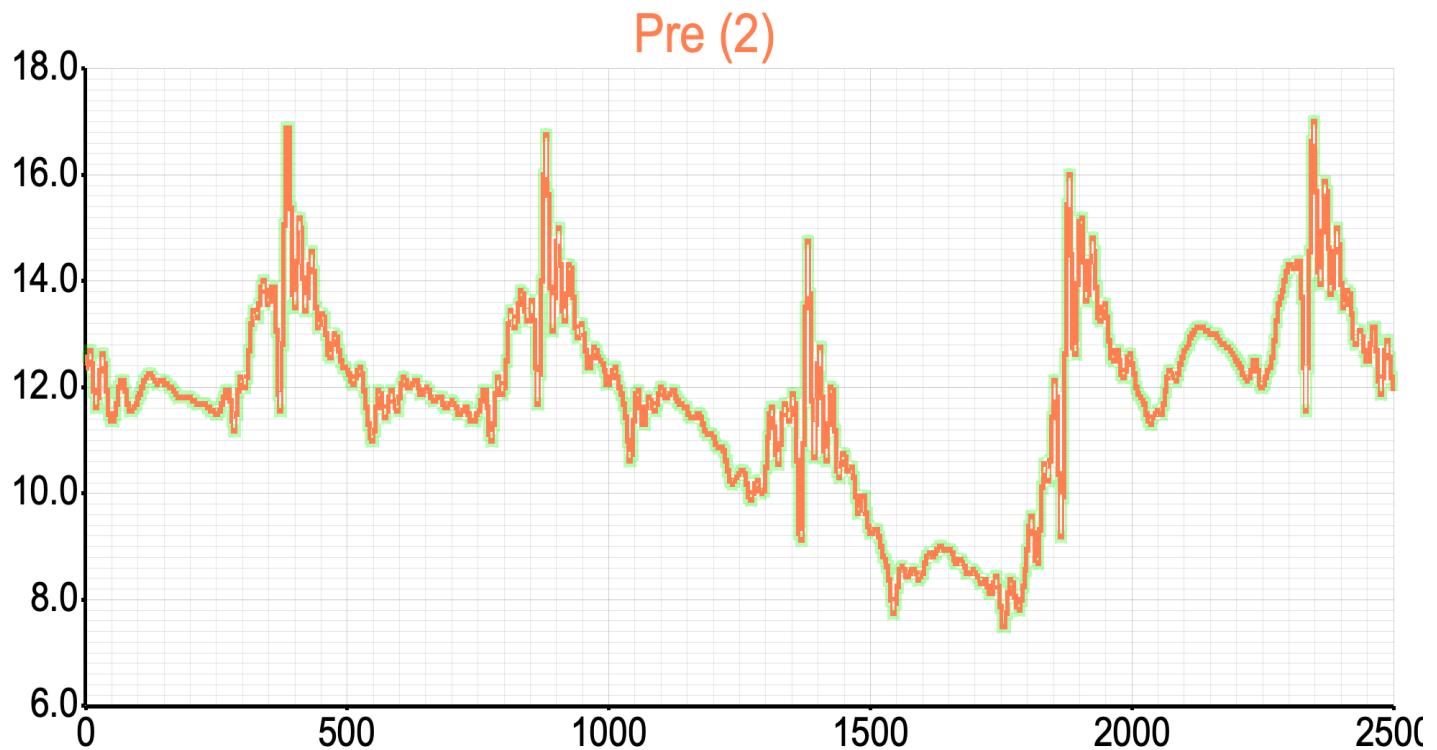
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	10.6	10.6	10.8	10.8
Cardiac Amp	3.6	3.6	3.2	3.2
High Freq Power	492820.8	492820.8	30420.7	30420.7

Patient Patient 4 - RJ - Sample 1



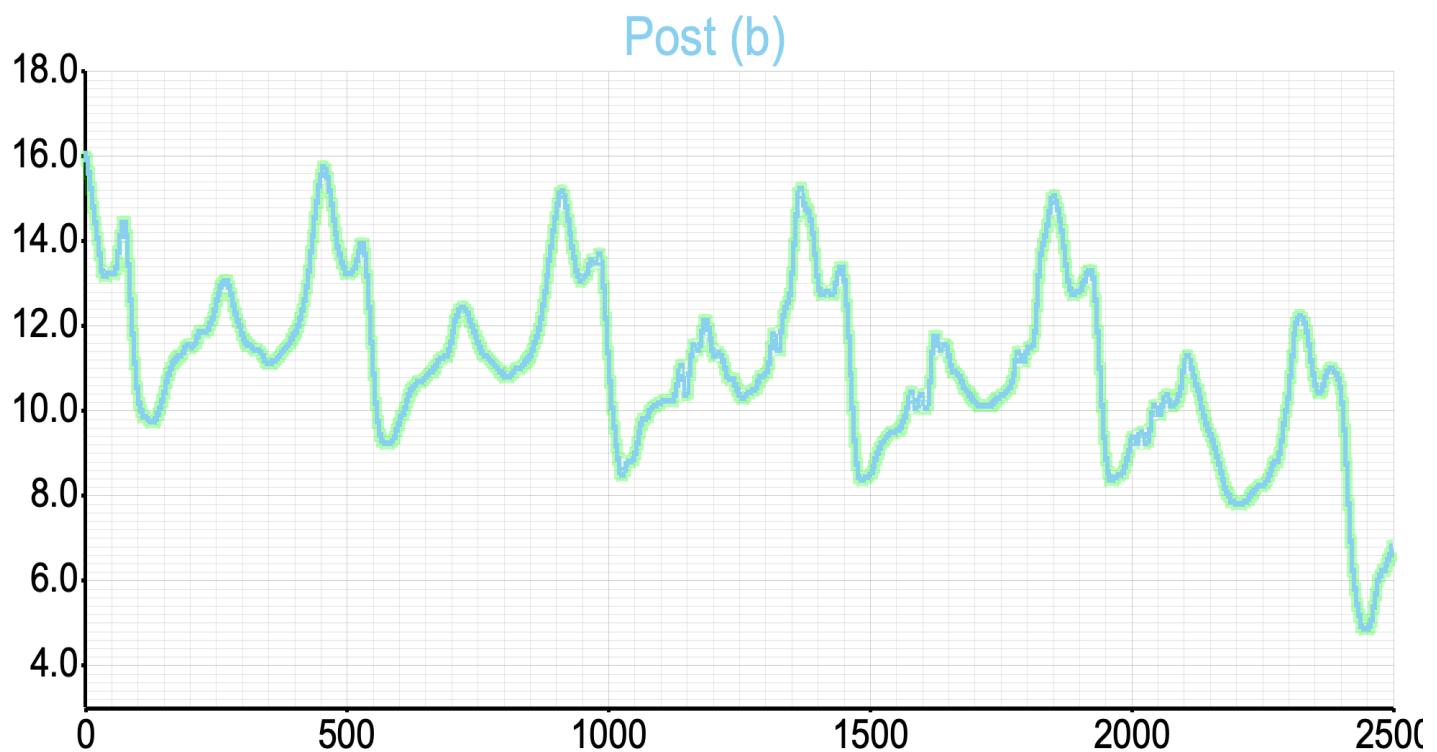
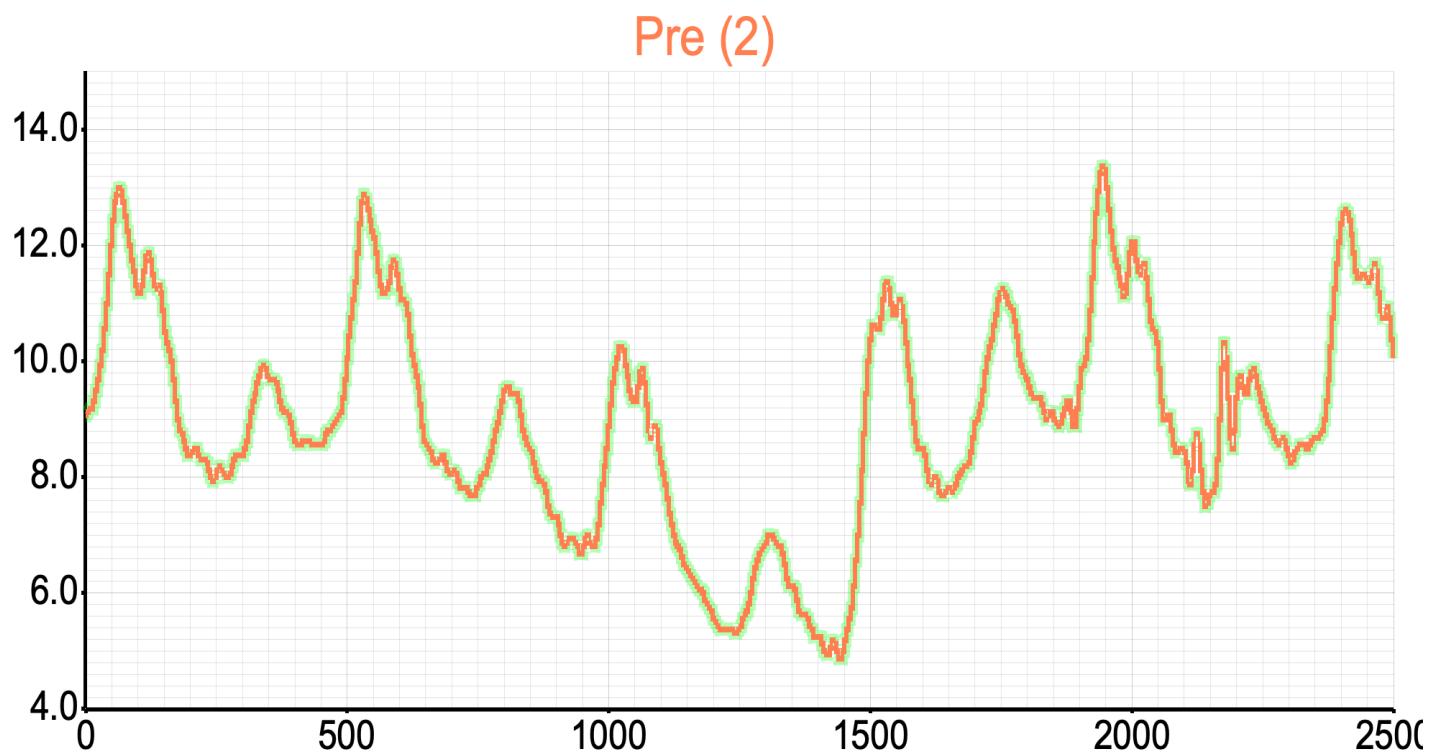
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	9.2	9.2	12.4	12.4
Cardiac Amp	3.4	3.4	8.3	8.3
High Freq Power	133234.5	133234.5	44634.2	44634.2

Patient Patient 5 - LJ - Sample 1



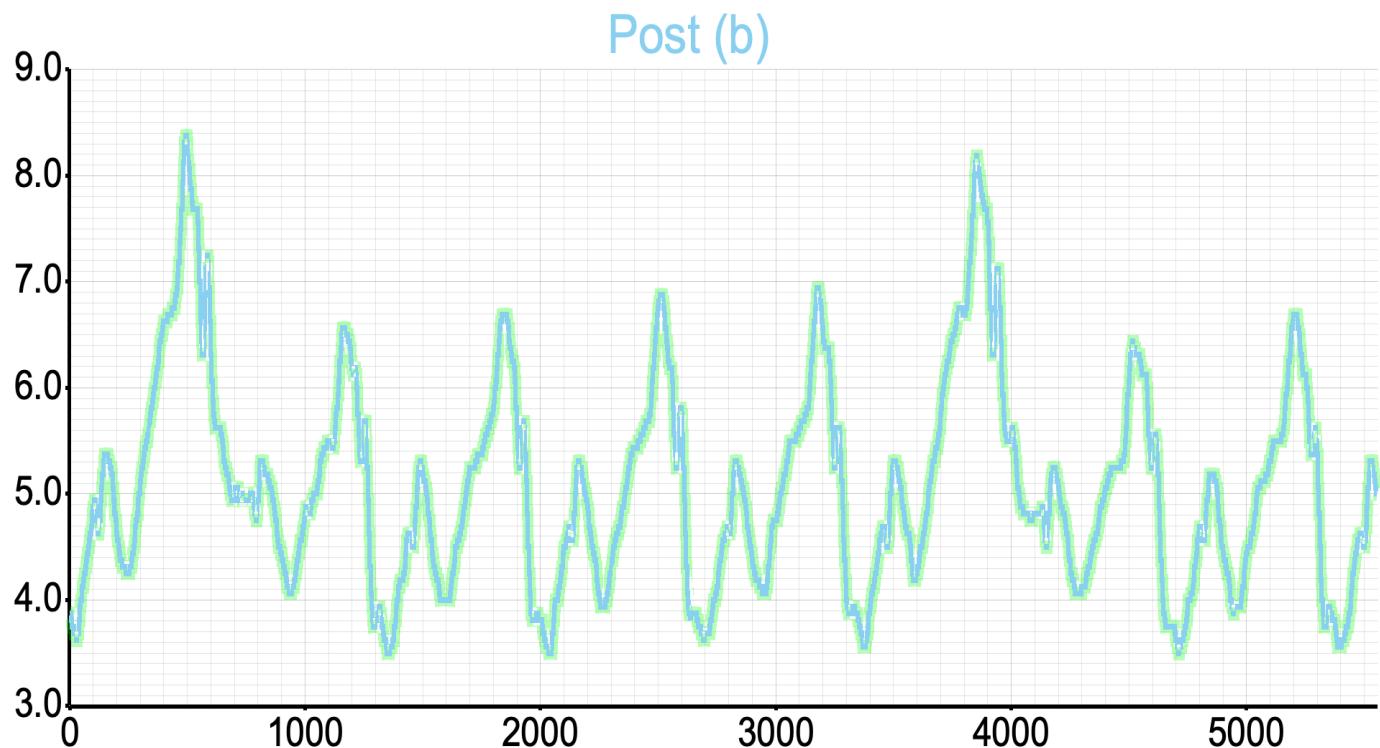
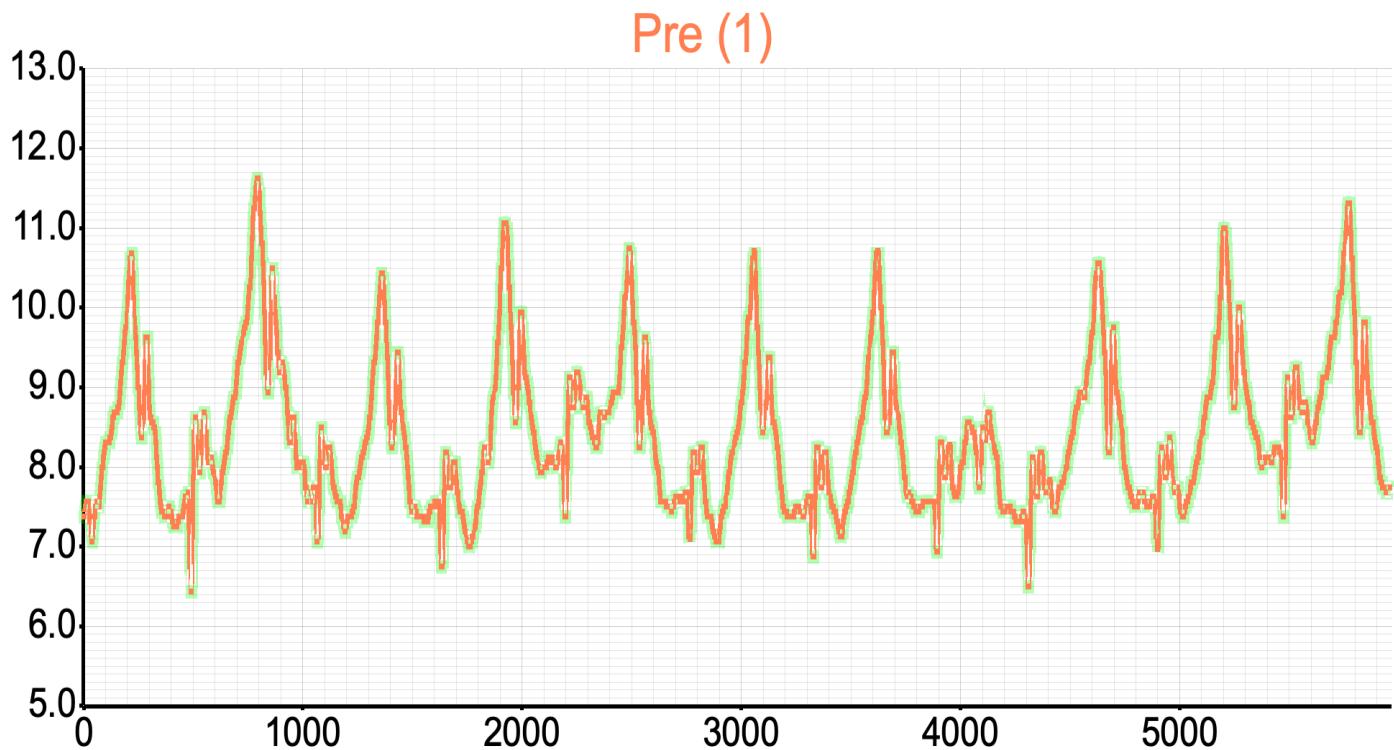
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	11.8	11.8	12.4	12.4
Cardiac Amp	5.8	5.8	3.2	3.2
High Freq Power	818967.5	818967.5	23065.3	23065.3

Patient Patient 5 - RJ - Sample 1



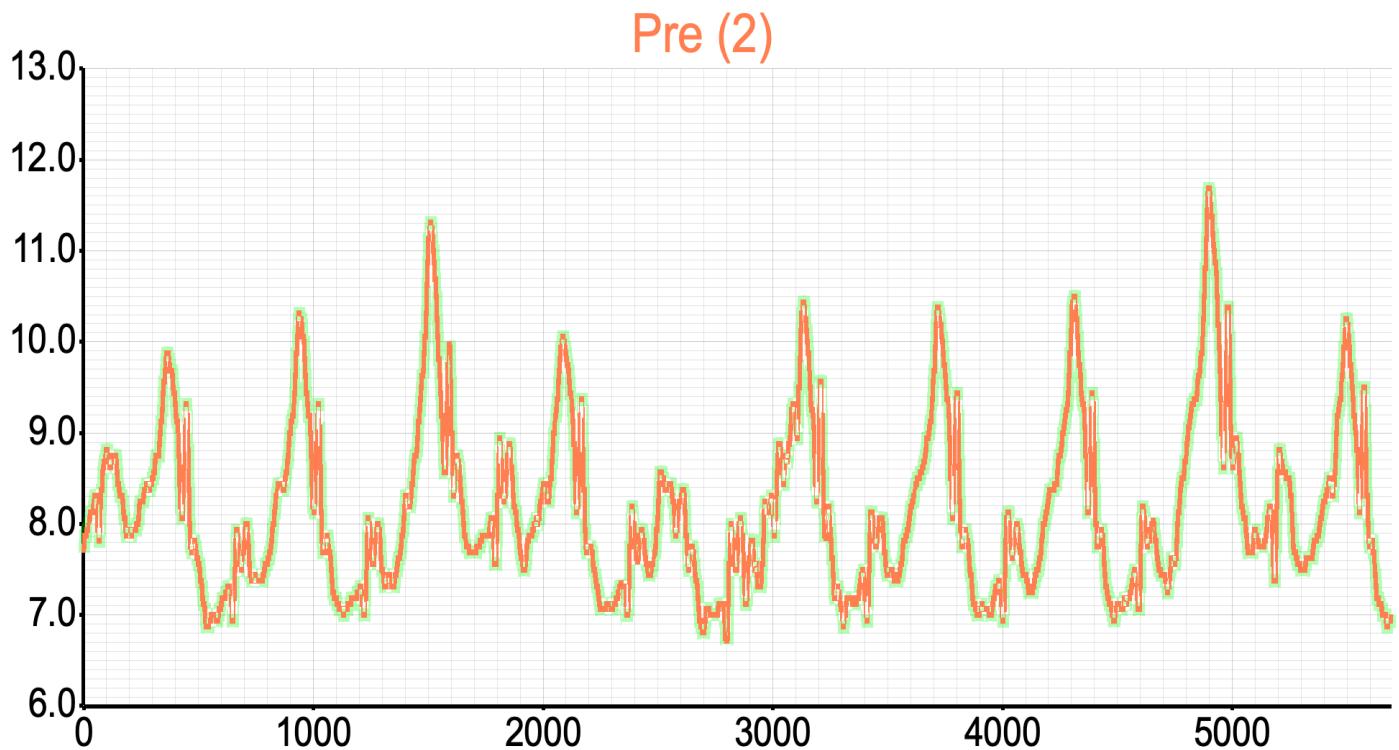
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	9.0	9.0	11.1	11.1
Cardiac Amp	5.3	5.3	8.0	8.0
High Freq Power	78039.8	78039.8	341802.9	341802.9

Patient Patient 6 - LJ - Sample 1



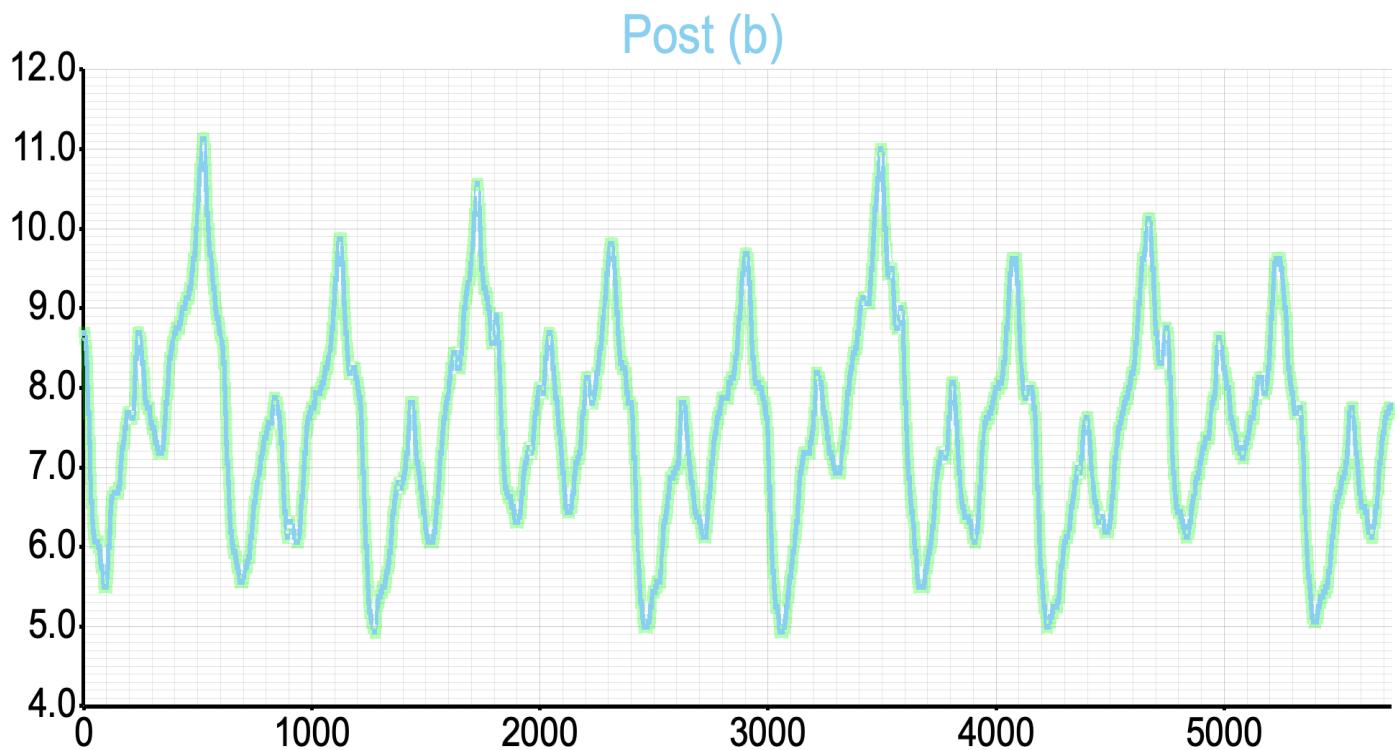
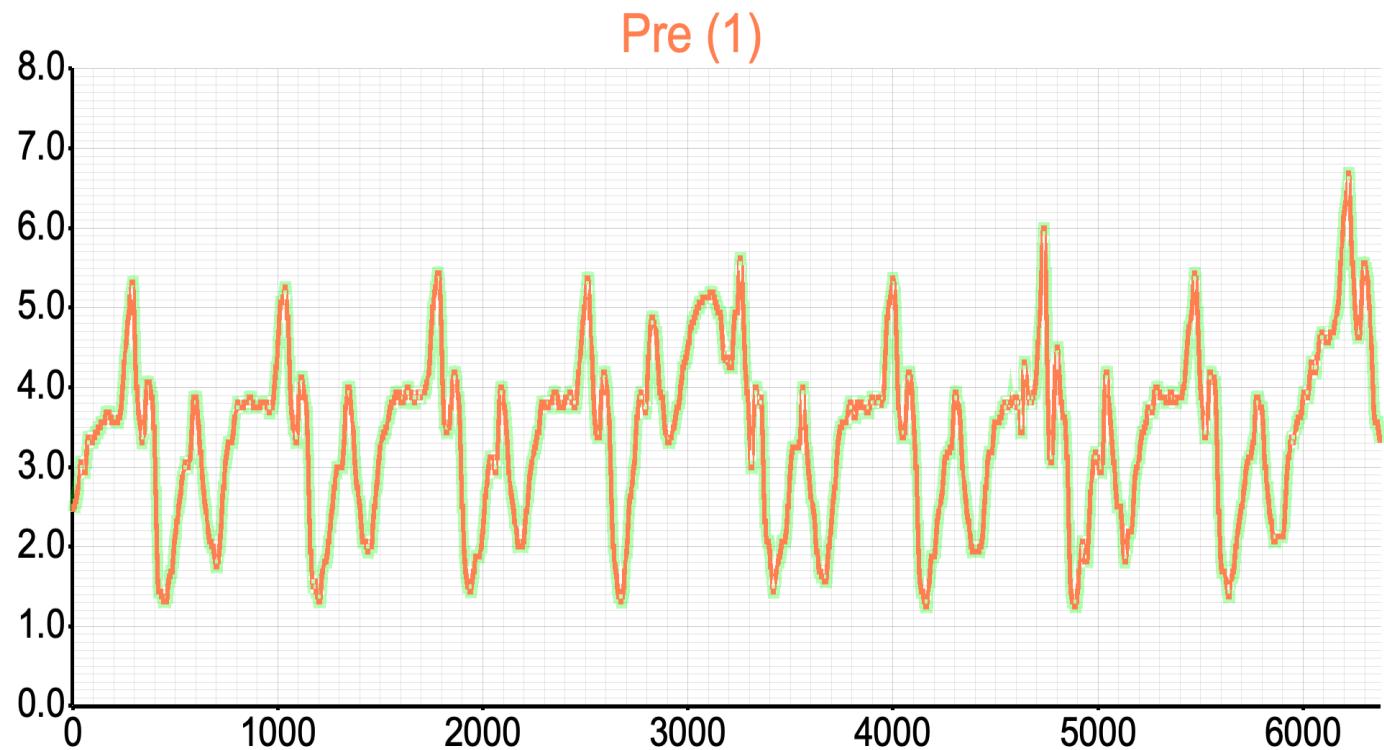
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	8.4	8.4	5.1	5.1
Cardiac Amp	3.9	3.9	3.2	3.2
High Freq Power	387514.5	387514.5	100483.0	100483.0

Patient Patient 6 - LJ - Sample 2



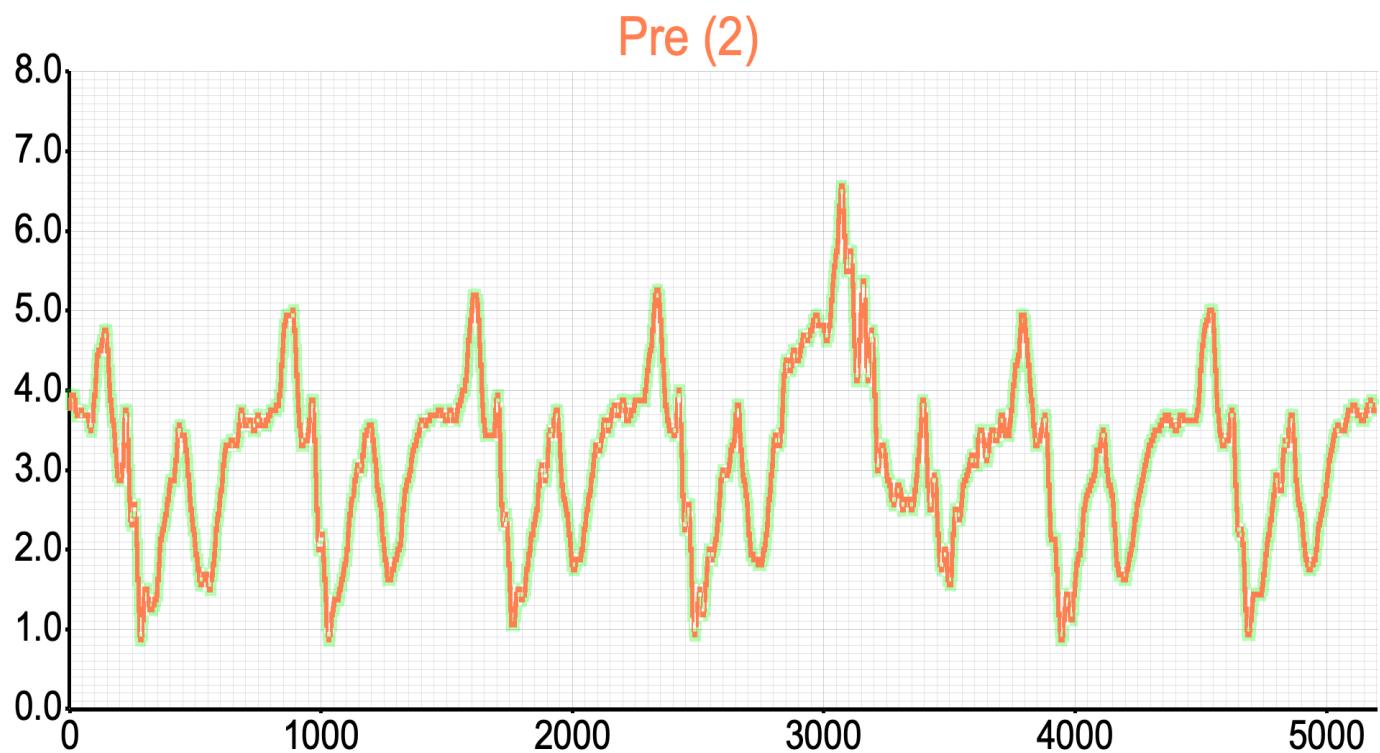
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	8.2	8.2	-	-
Cardiac Amp	3.7	3.7	-	-
High Freq Power	449538.0	449538.0	-	-

Patient Patient 6 - RJ - Sample 1



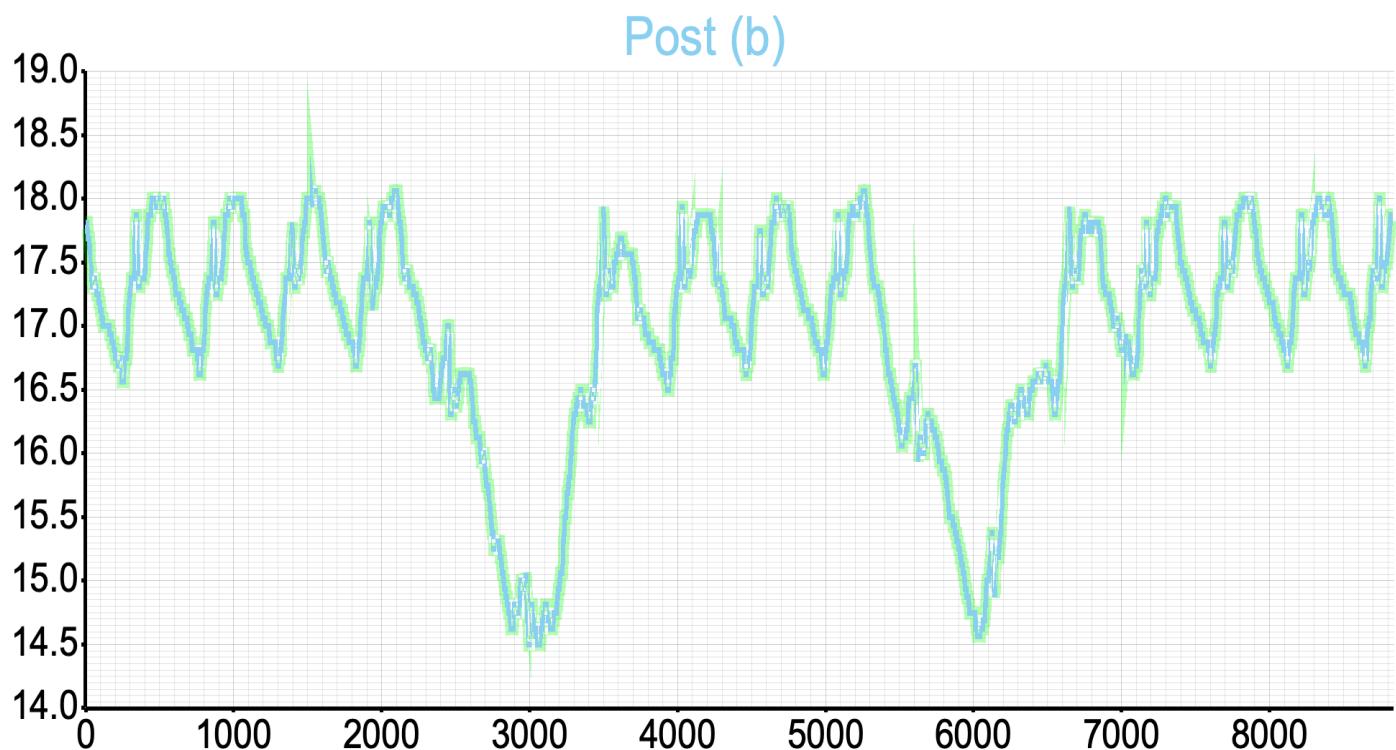
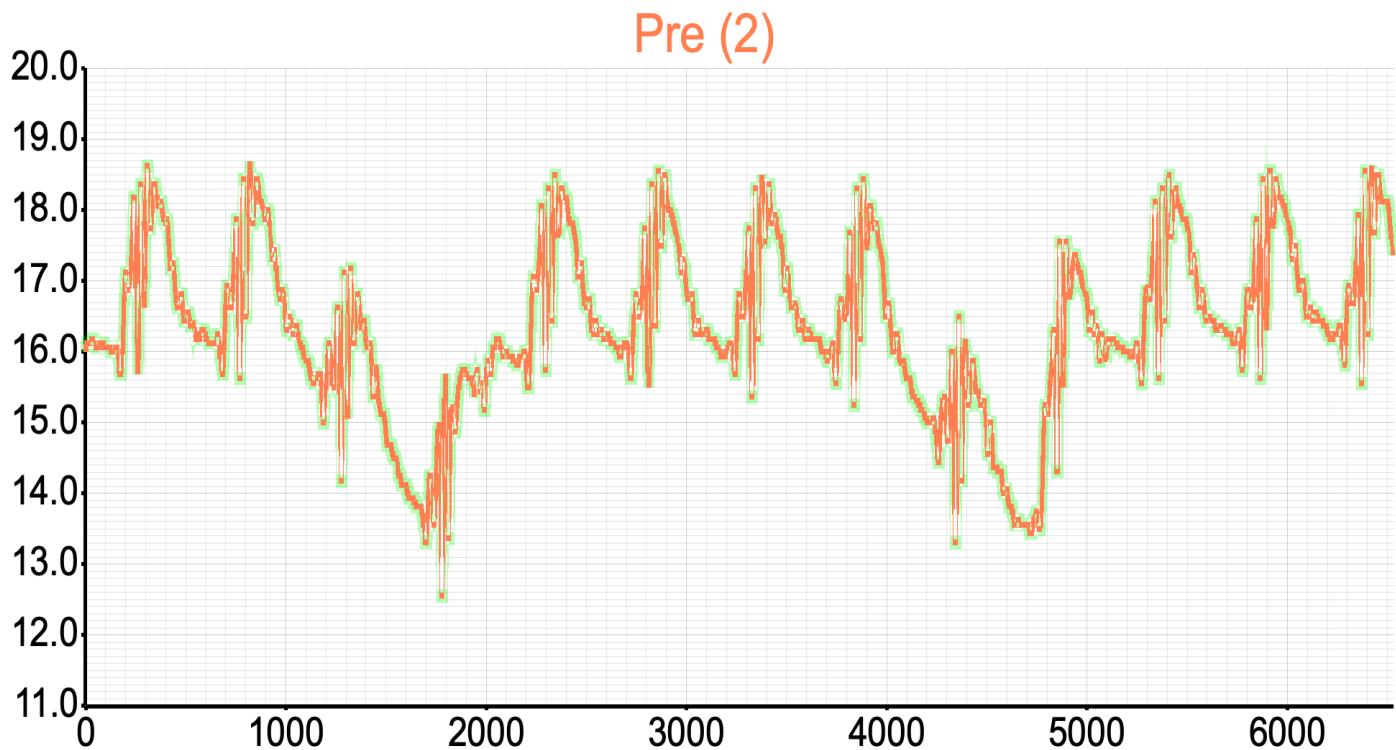
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	3.4	3.4	7.4	7.4
Cardiac Amp	3.7	3.7	4.5	4.5
High Freq Power	148506.9	148506.9	78555.9	78555.9

Patient Patient 6 - RJ - Sample 2



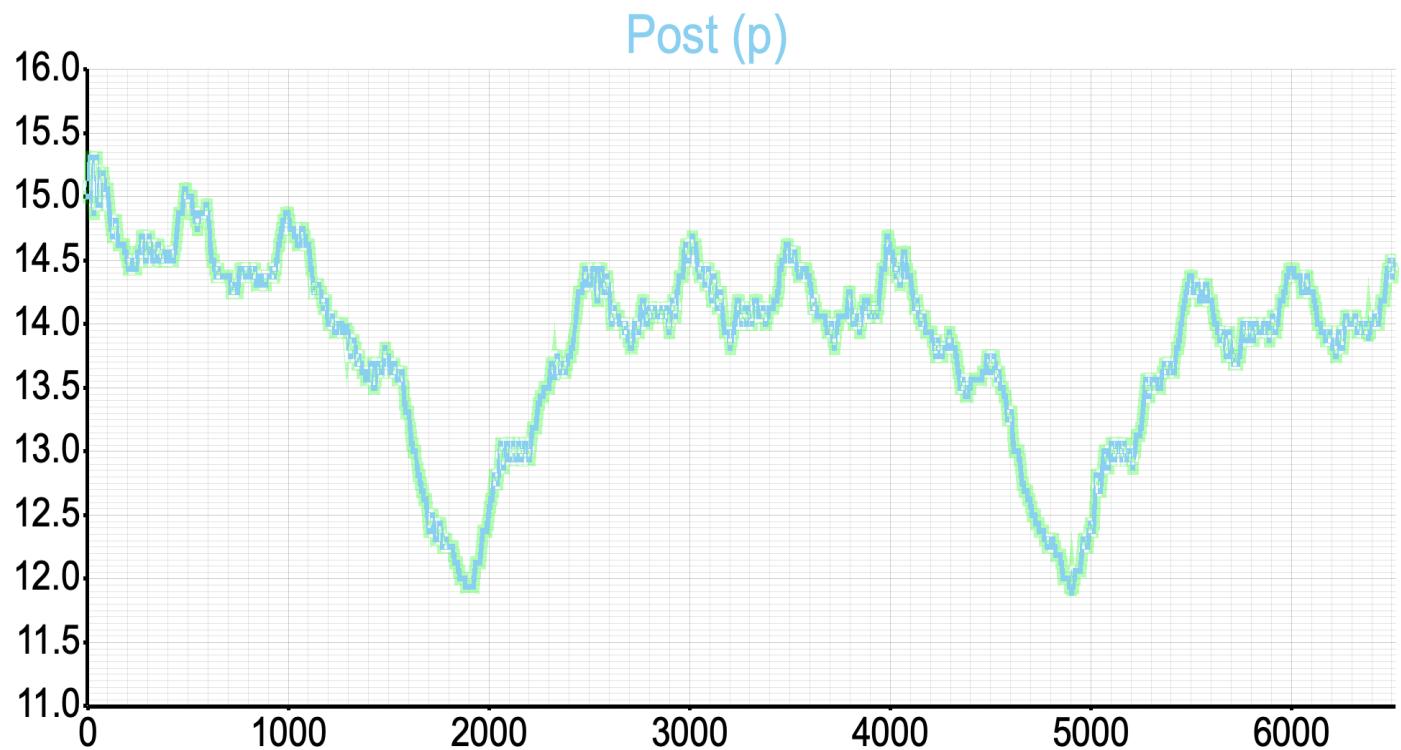
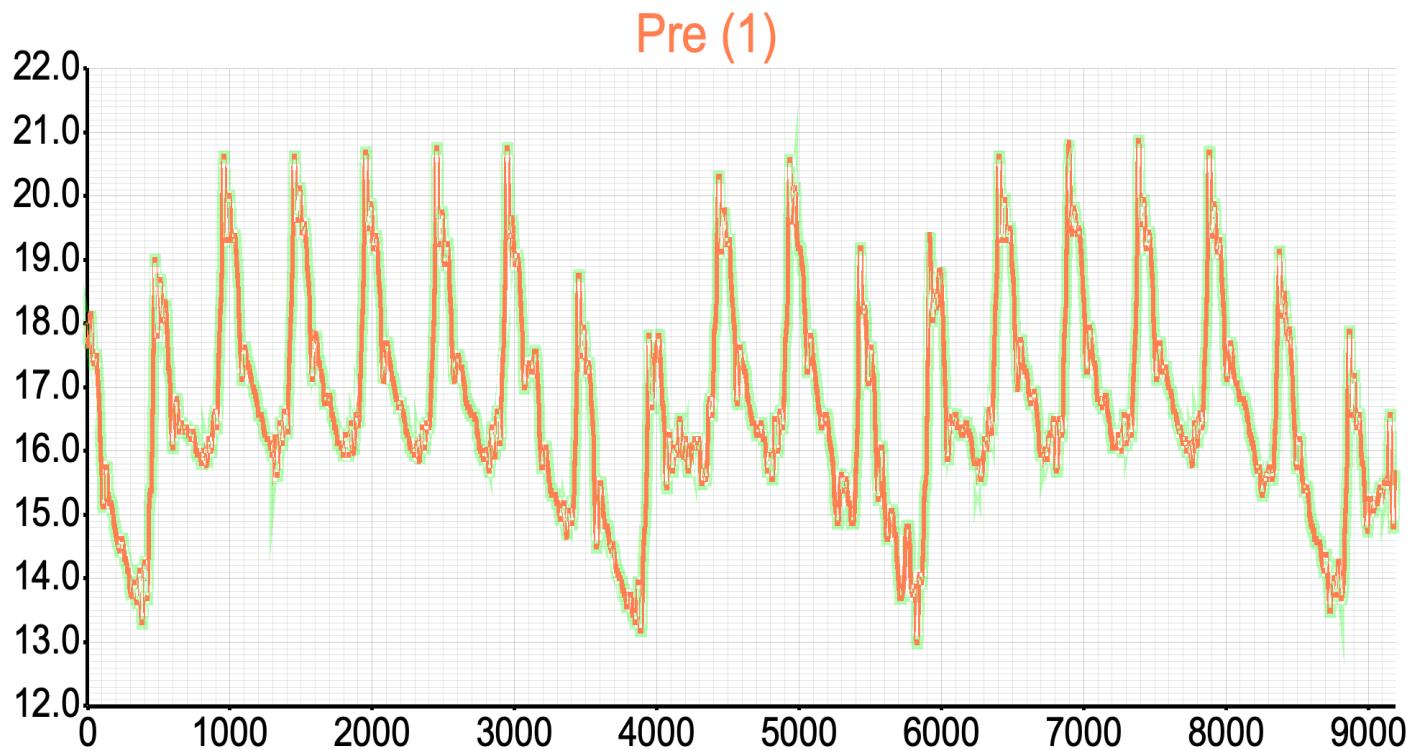
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	3.1	3.1	-	-
Cardiac Amp	3.7	3.7	-	-
High Freq Power	228698.1	228698.1	-	-

Patient Patient 7 - LJ - Sample 1



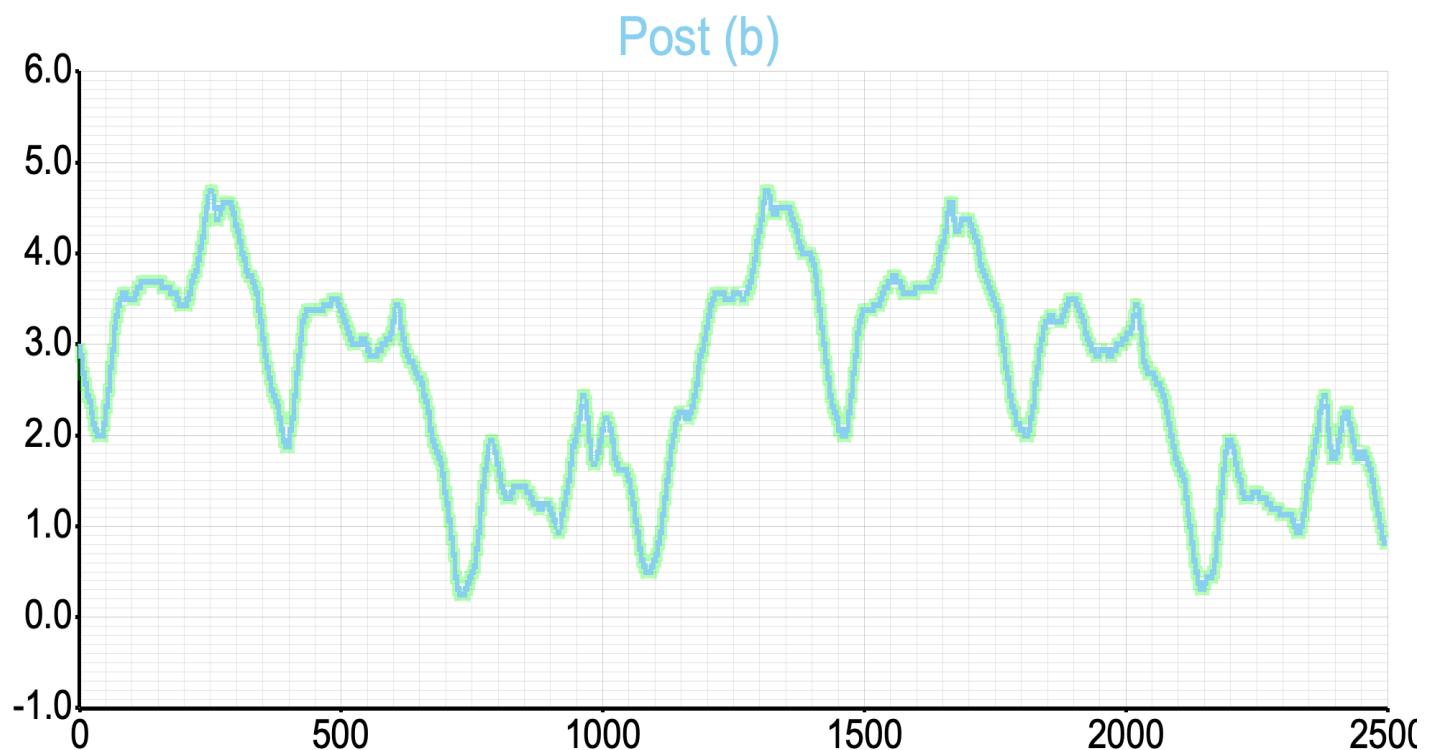
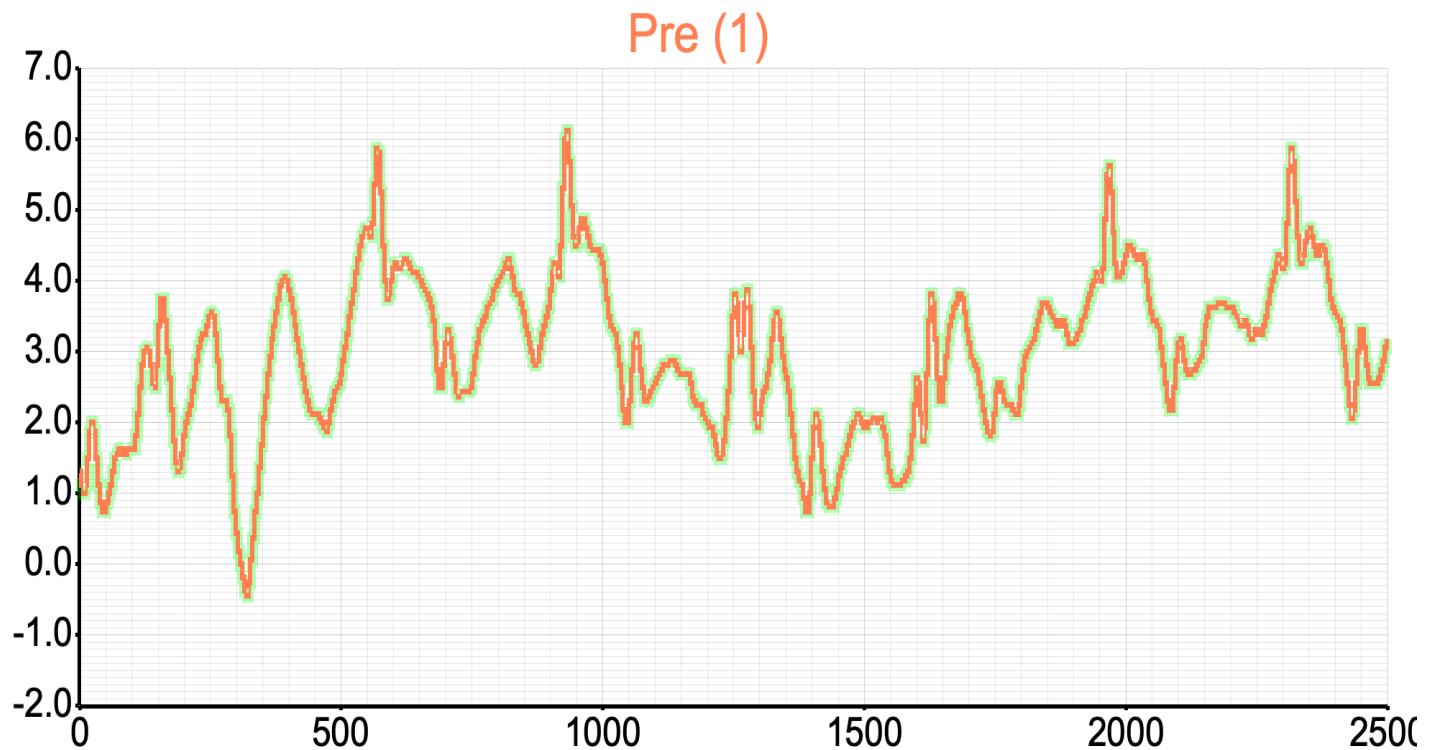
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	16.3	16.3	17.0	17.0
Cardiac Amp	3.6	3.6	1.0	1.0
High Freq Power	2567840.7	2567840.7	115755.4	115755.4

Patient Patient 7 - RJ - Sample 1



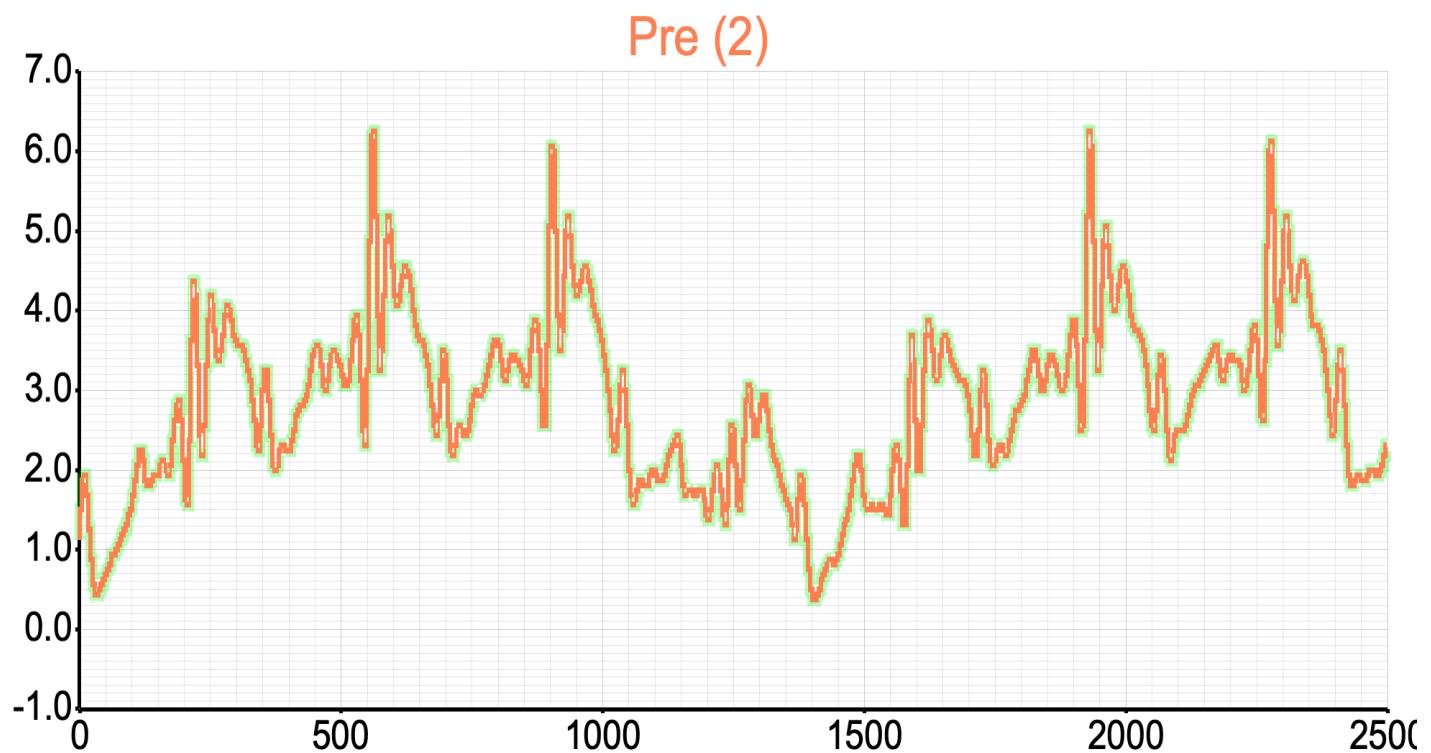
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	16.7	16.7	13.8	13.8
Cardiac Amp	5.3	5.3	1.2	1.2
High Freq Power	1458089.9	1458089.9	46386.8	46386.8

Patient Patient 8 - LJ - Sample 1



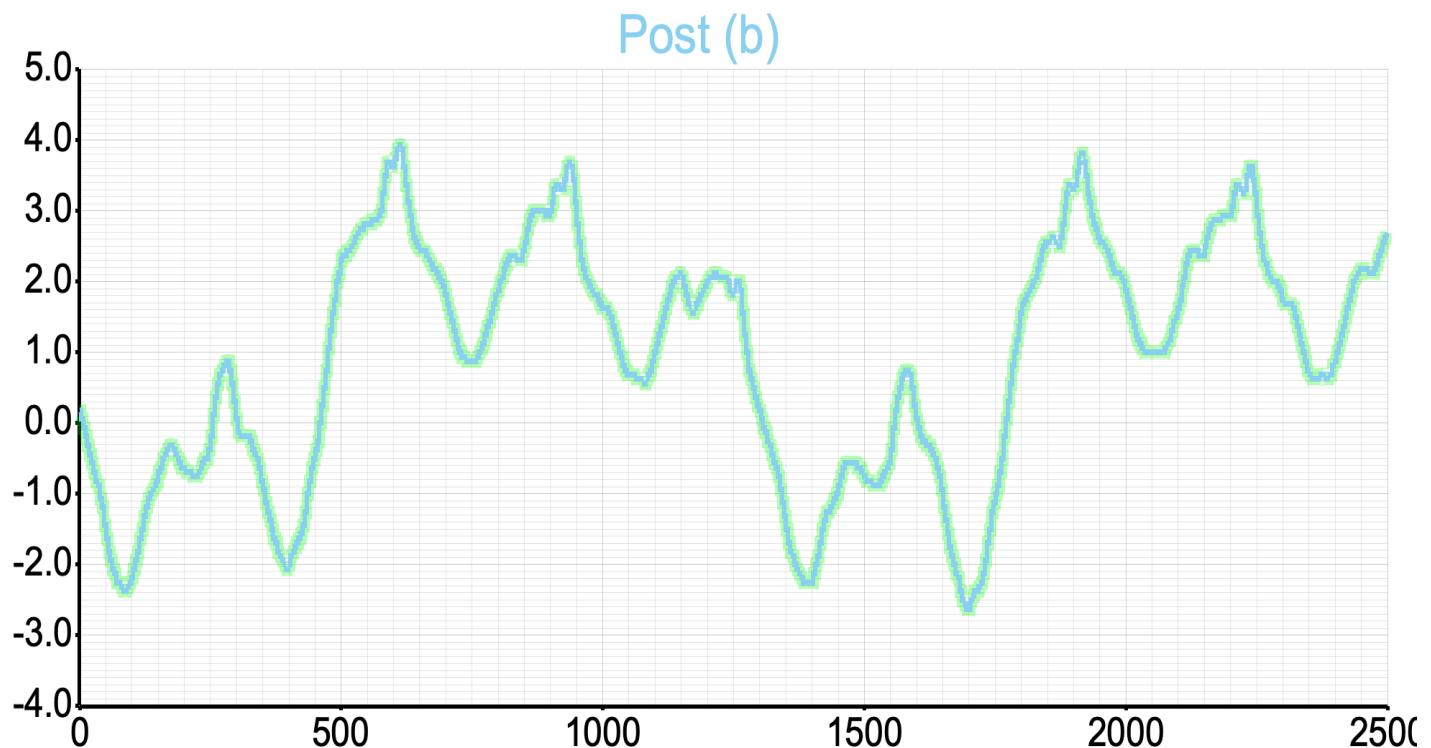
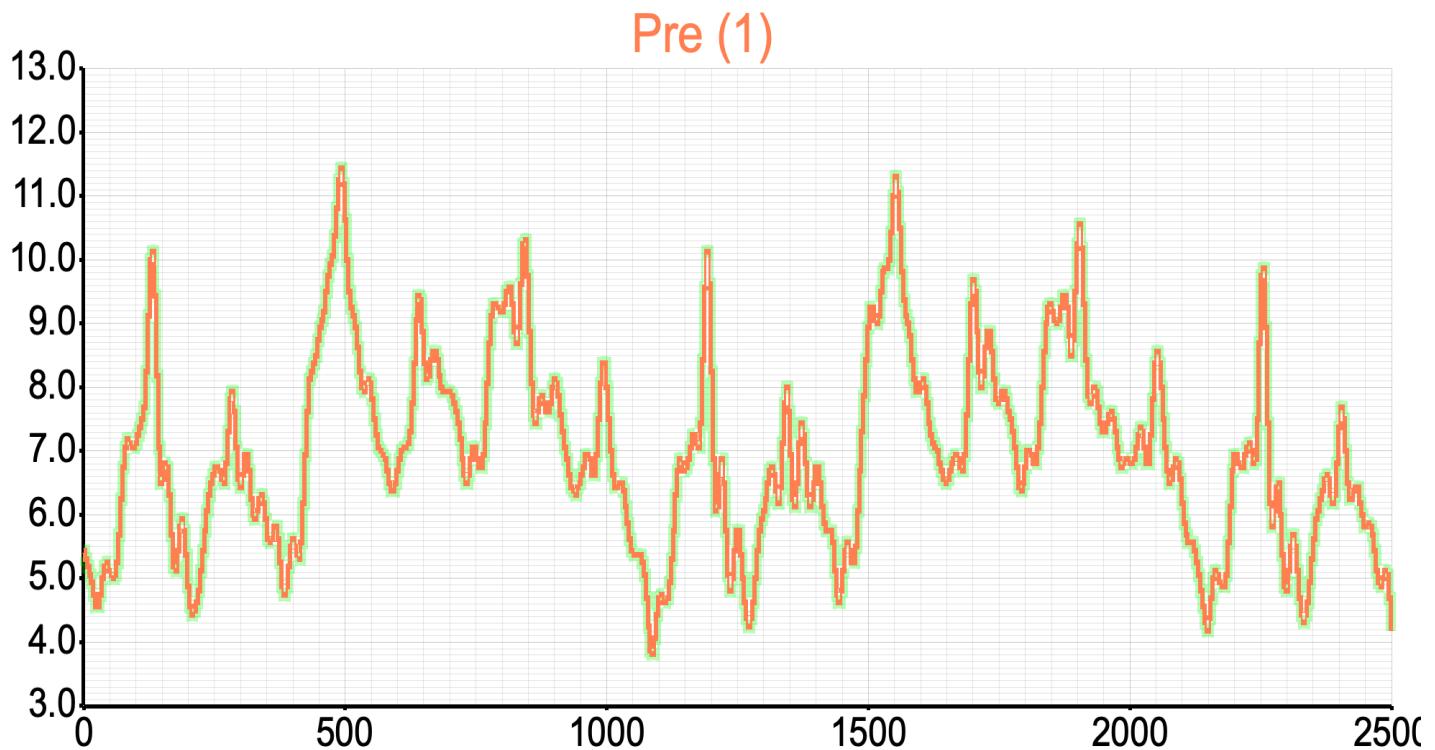
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	3.0	3.0	2.6	2.6
Cardiac Amp	4.7	4.7	2.1	2.1
High Freq Power	182657.4	182657.4	31416.8	31416.8

Patient Patient 8 - LJ - Sample 2



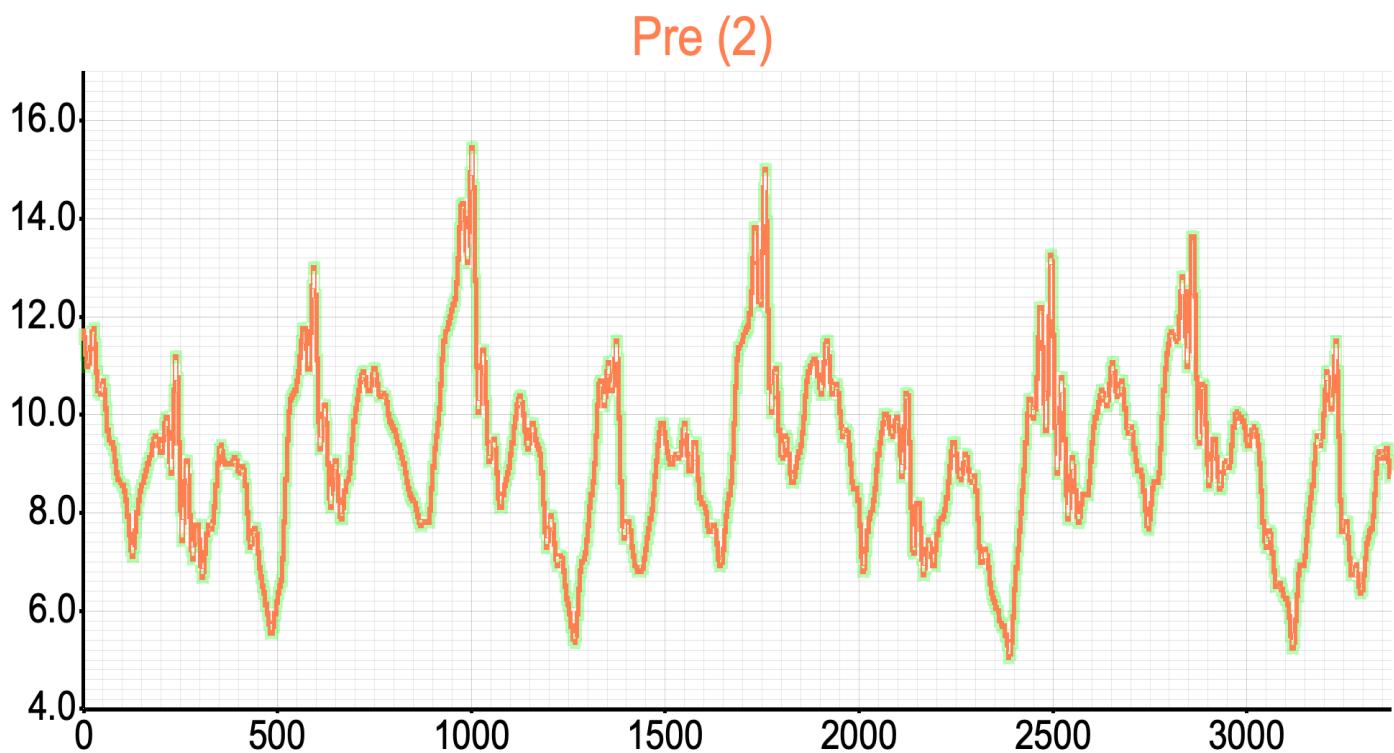
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	2.9	2.9	-	-
Cardiac Amp	3.9	3.9	-	-
High Freq Power	506150.3	506150.3	-	-

Patient Patient 8 - RJ - Sample 1



Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	7.0	7.0	0.9	0.9
Cardiac Amp	5.5	5.5	3.2	3.2
High Freq Power	405375.6	405375.6	34955.1	34955.1

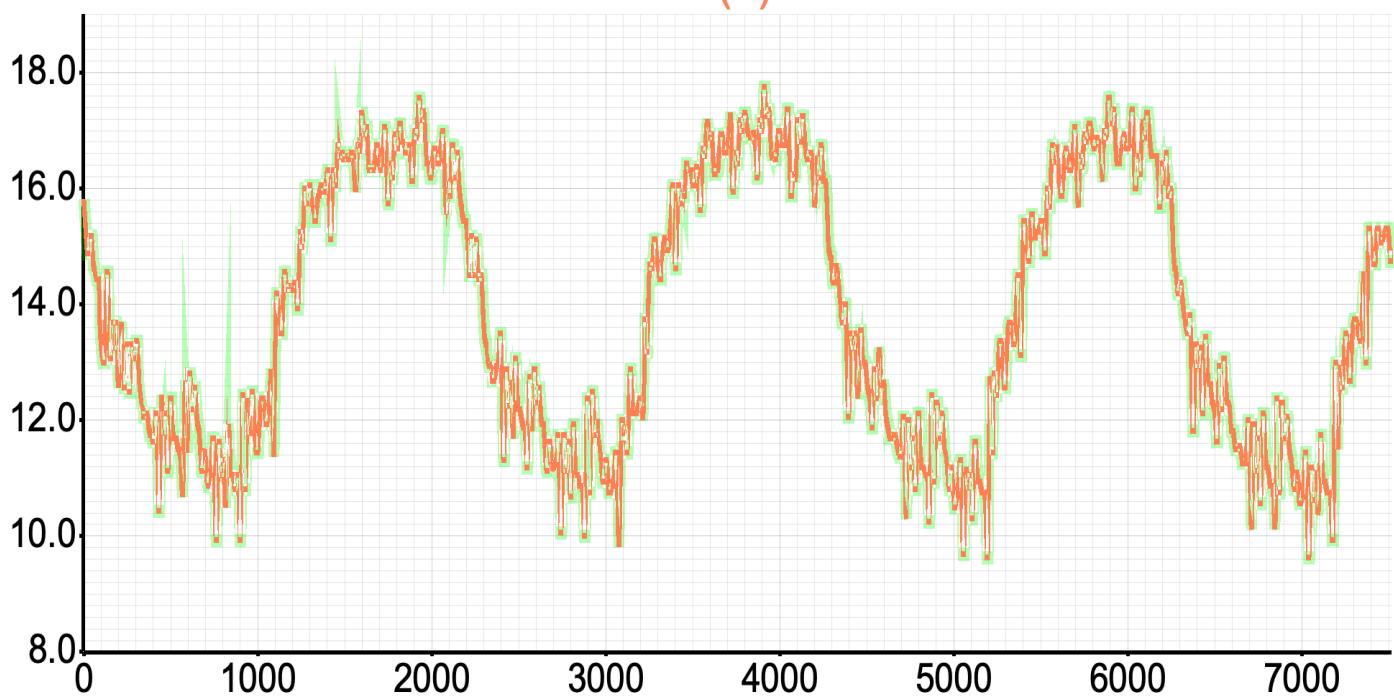
Patient Patient 8 - RJ - Sample 2



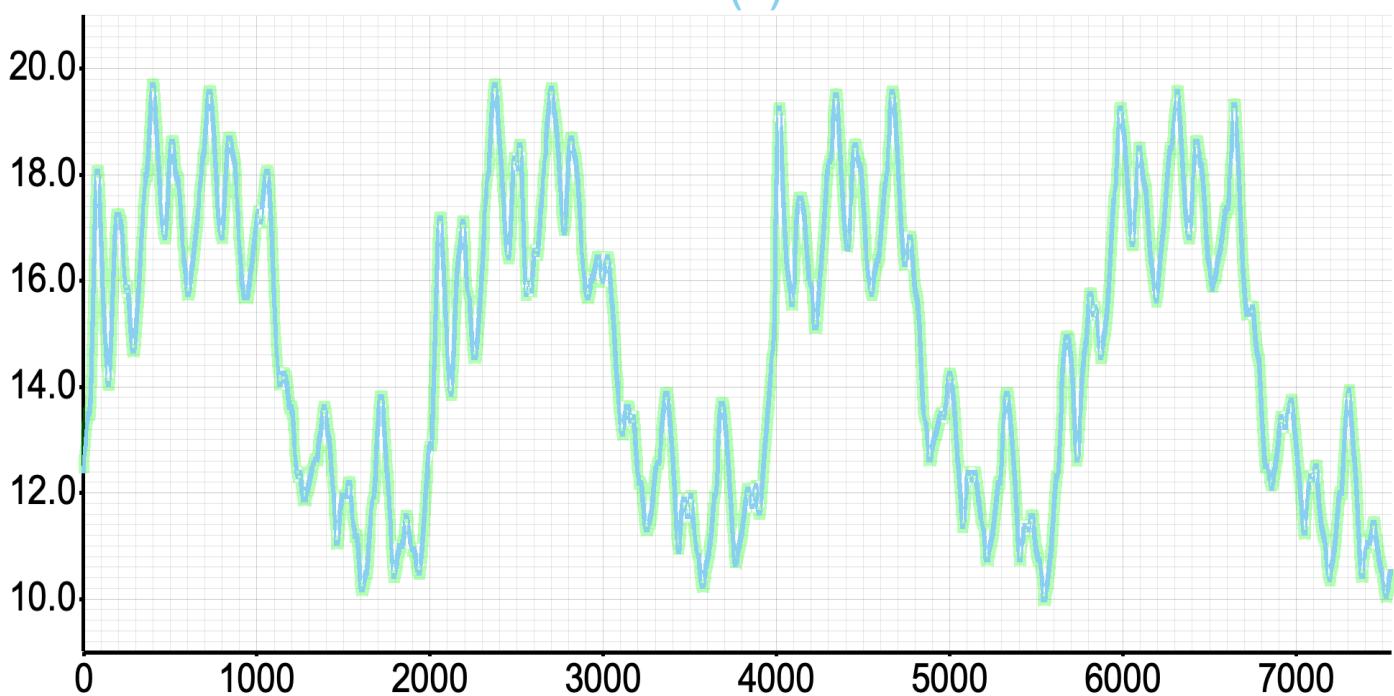
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	9.1	9.1	-	-
Cardiac Amp	8.2	8.2	-	-
High Freq Power	1012857.2	1012857.2	-	-

Patient Patient 9 - LJ - Sample 1

Pre (1)

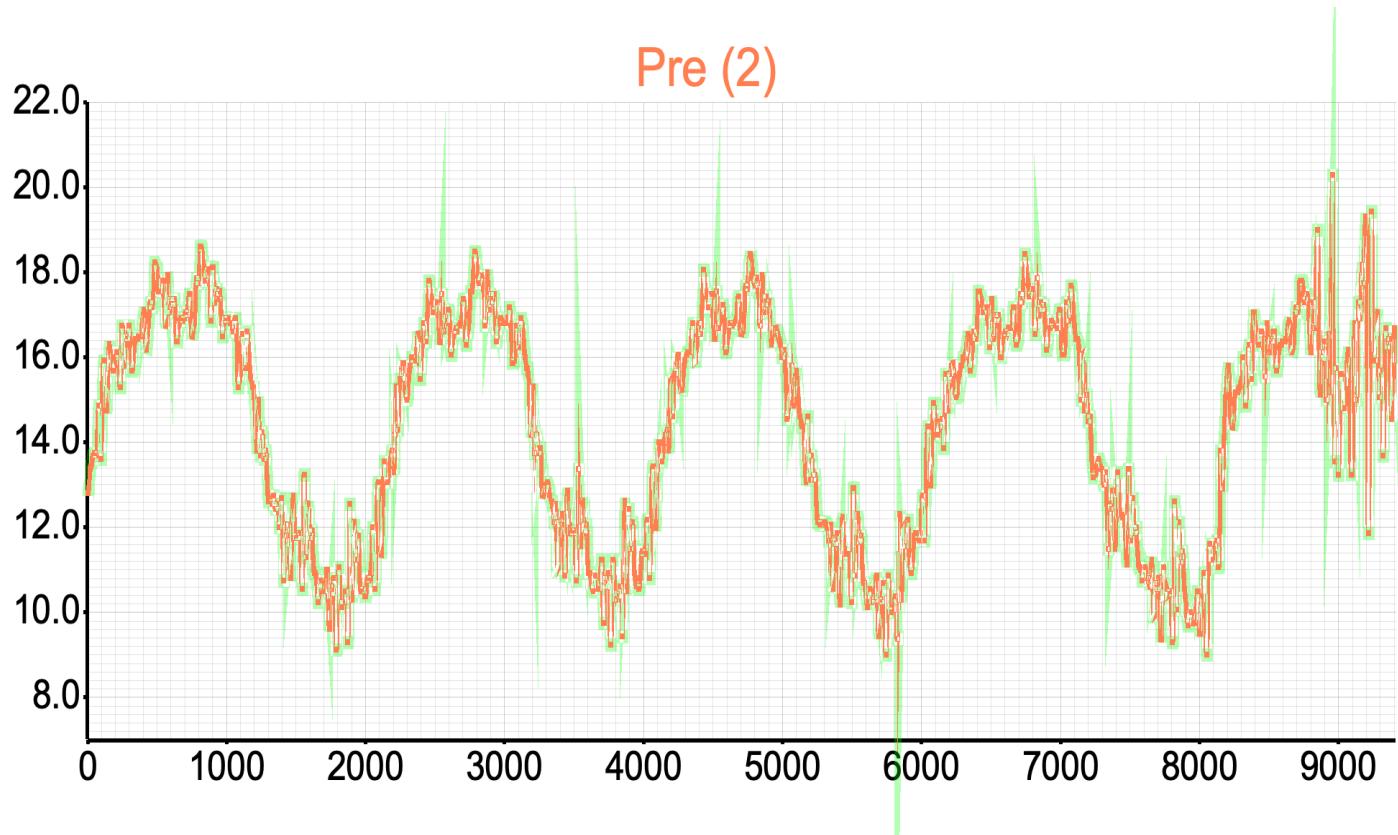


Post (b)



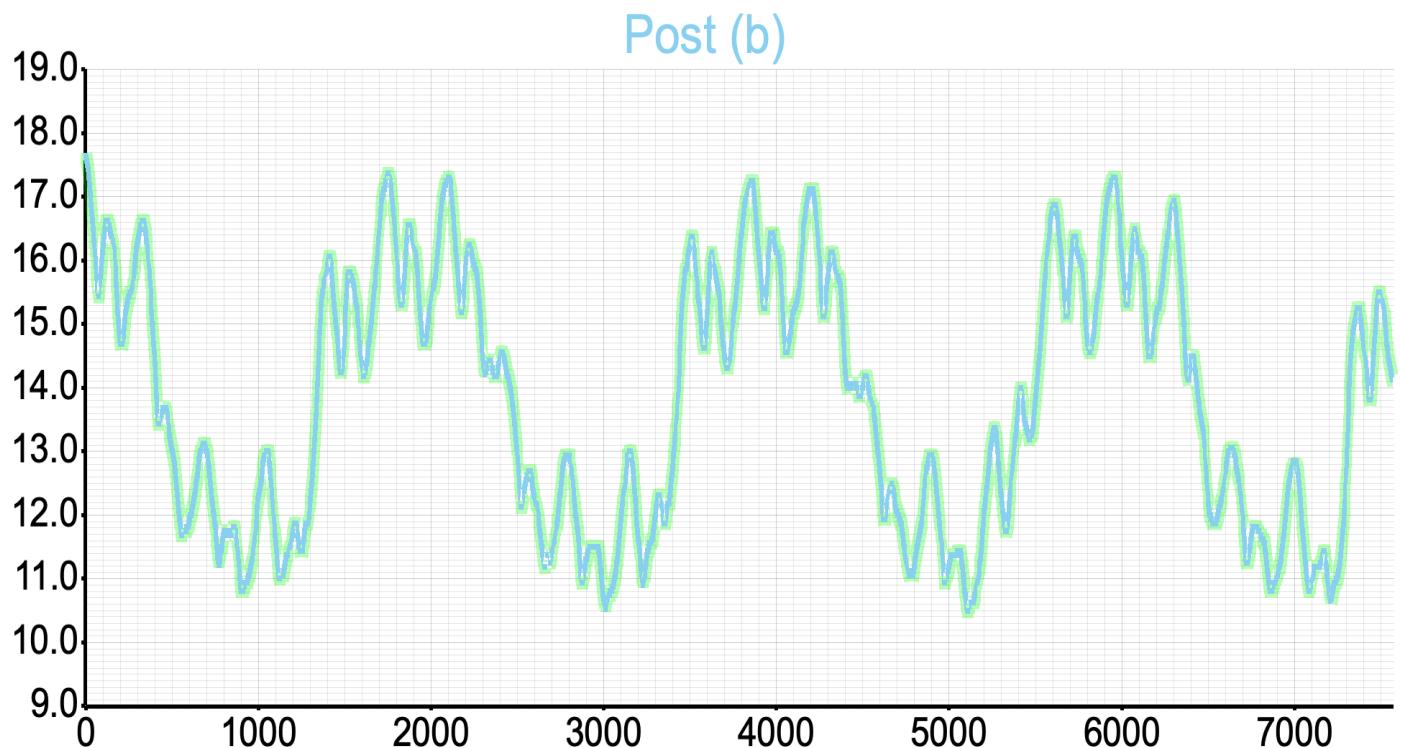
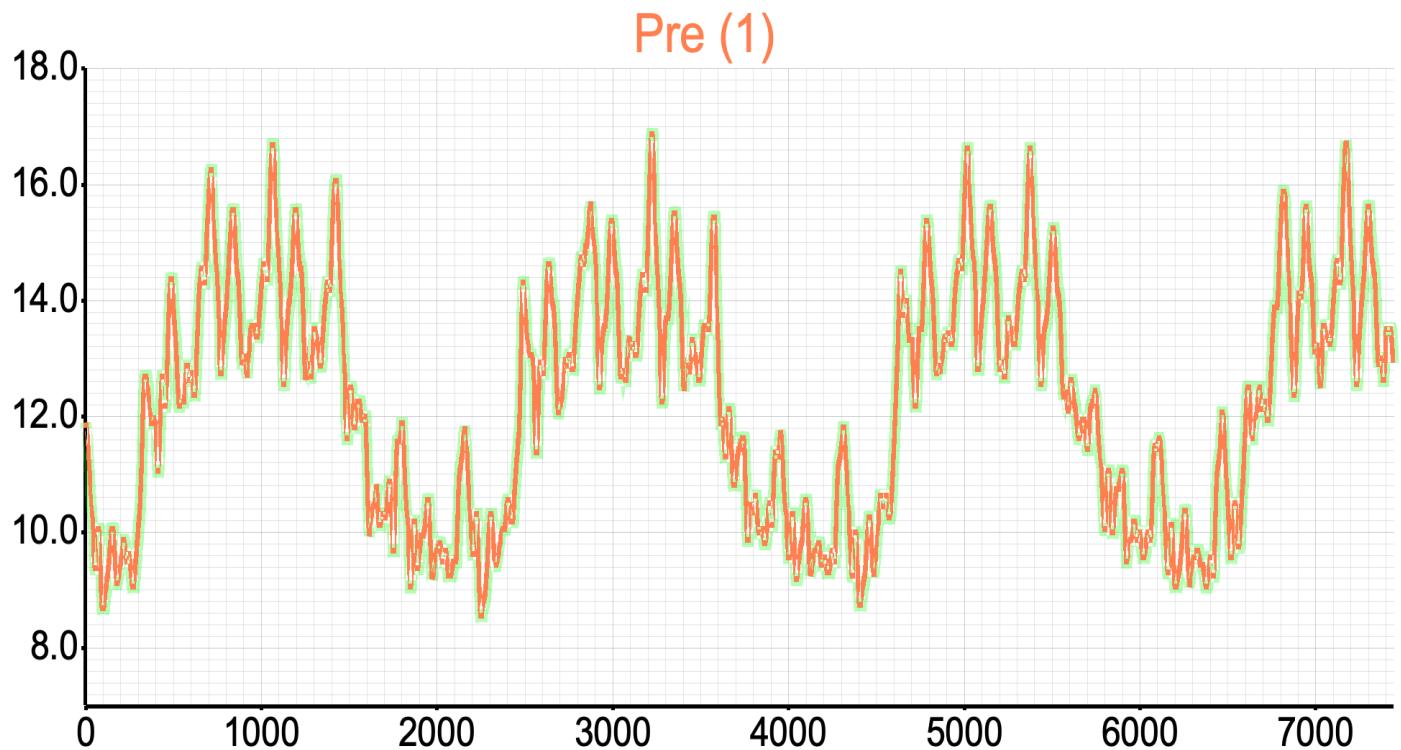
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	13.8	13.8	14.7	14.7
Cardiac Amp	2.4	2.4	3.3	3.3
High Freq Power	2599864.5	2599864.5	278014.8	278014.8

Patient Patient 9 - LJ - Sample 2



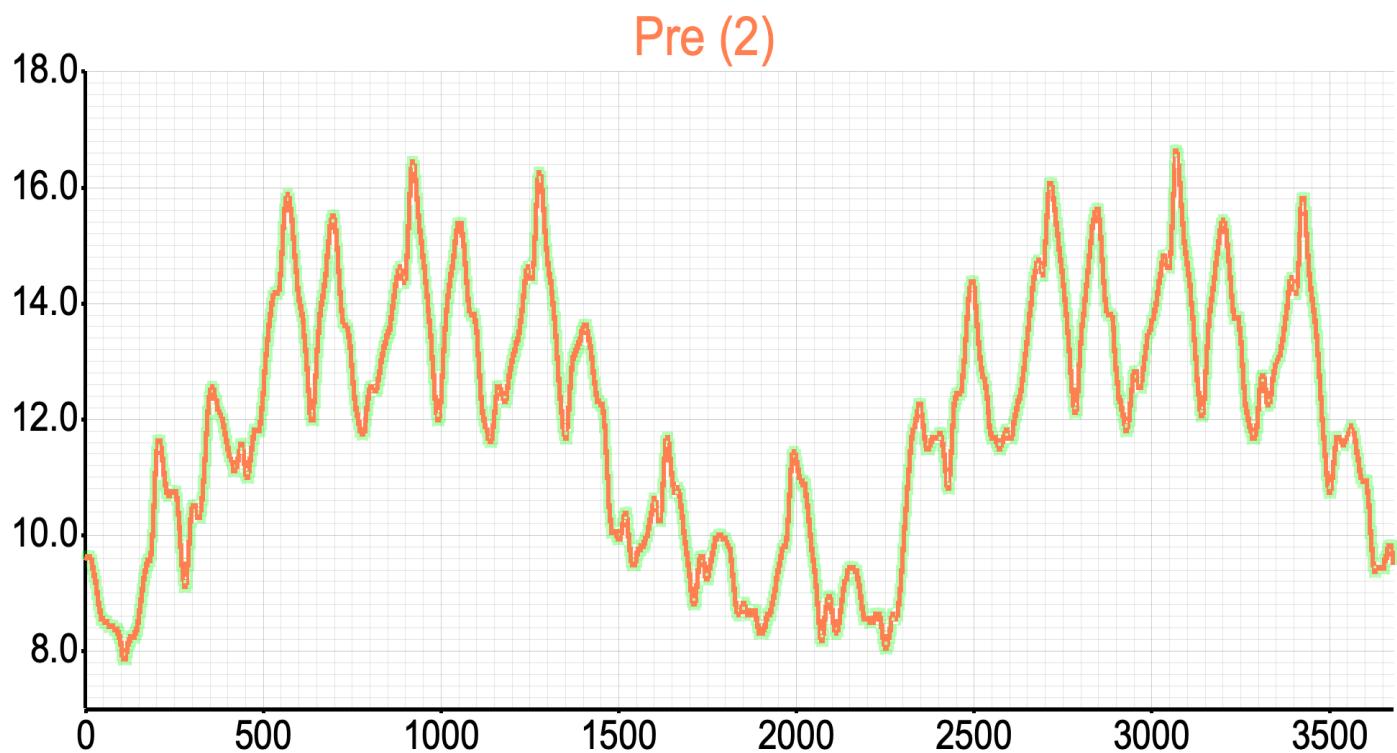
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	14.5	14.5	-	-
Cardiac Amp	4.3	4.3	-	-
High Freq Power	7471904.9	7471904.9	-	-

Patient Patient 9 - RJ - Sample 1



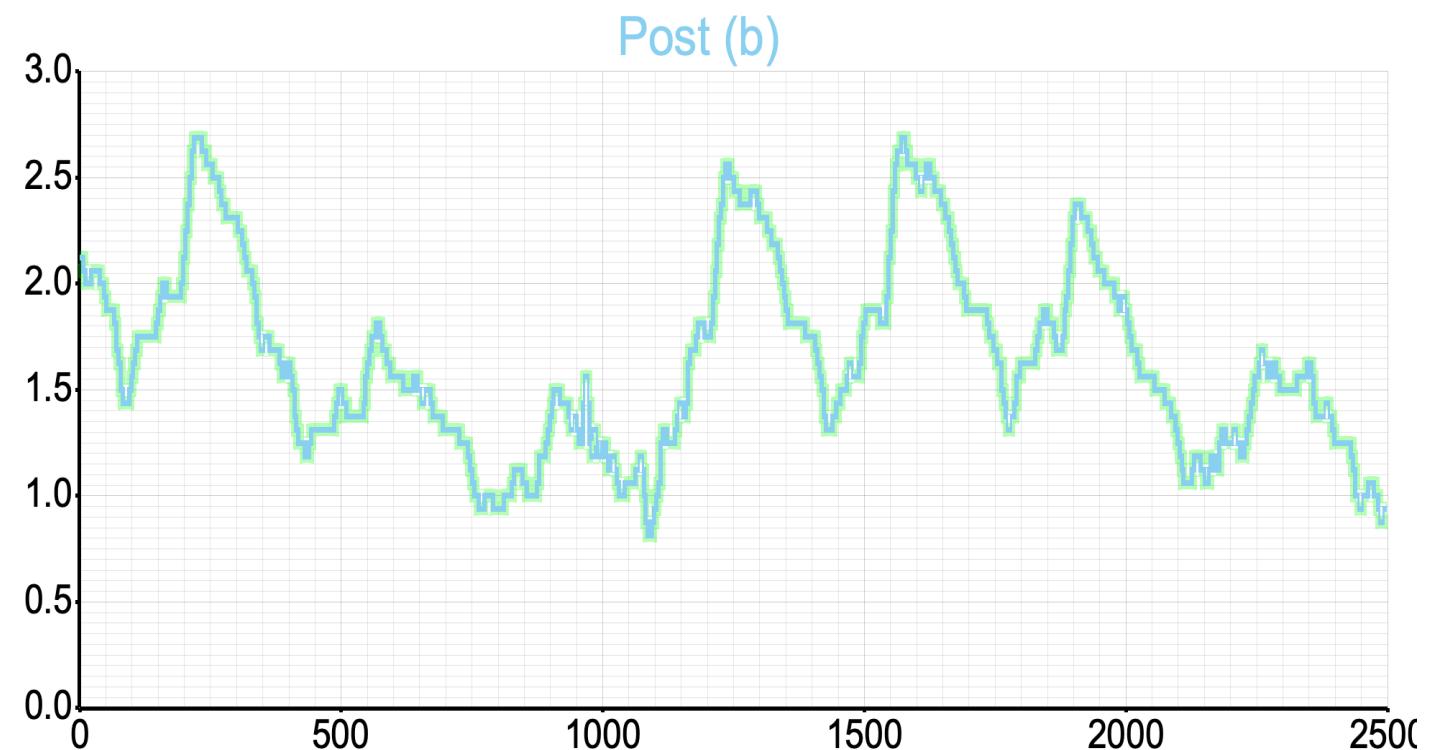
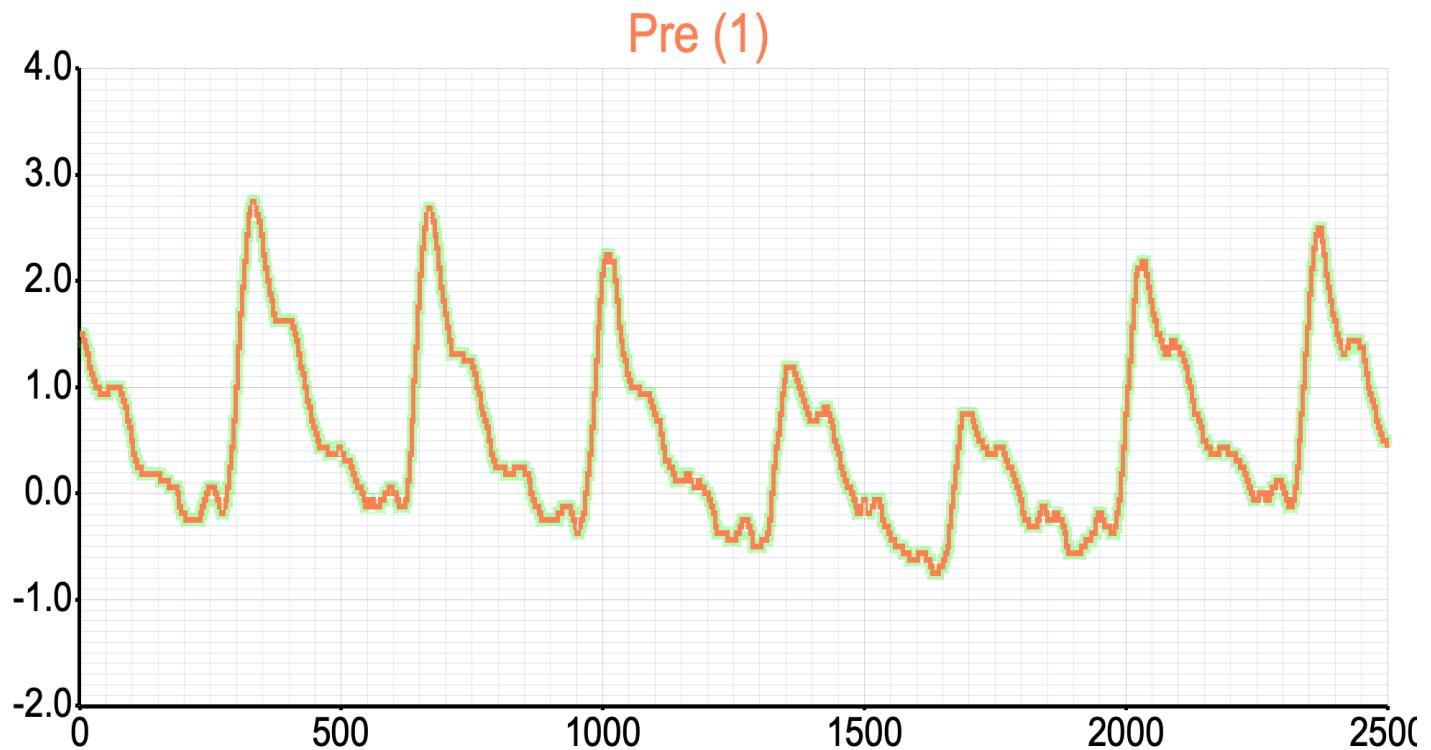
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	12.3	12.3	13.8	13.8
Cardiac Amp	3.8	3.8	2.5	2.5
High Freq Power	810262.4	810262.4	173145.4	173145.4

Patient Patient 9 - RJ - Sample 2



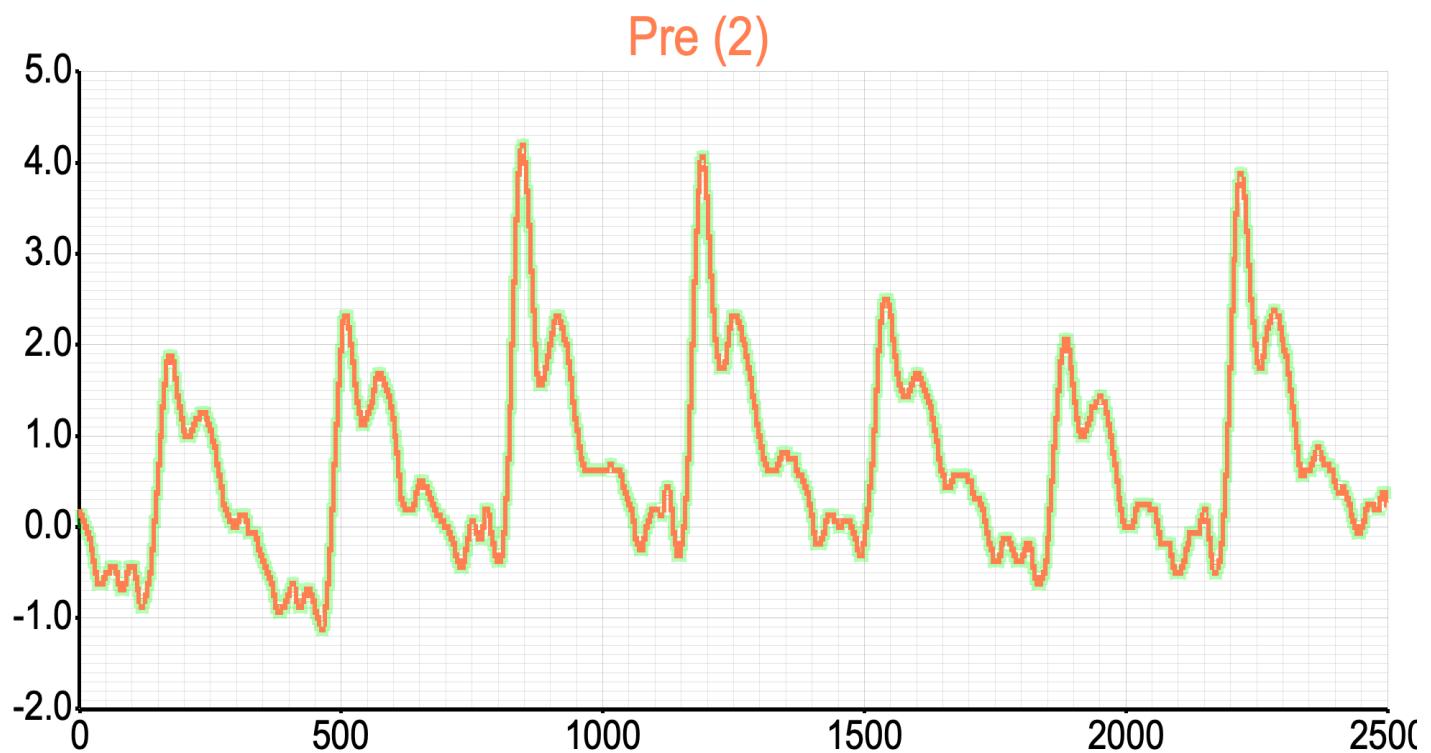
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	12.0	12.0	-	-
Cardiac Amp	3.8	3.8	-	-
High Freq Power	230849.9	230849.9	-	-

Patient Patient 10 - LJ - Sample 1



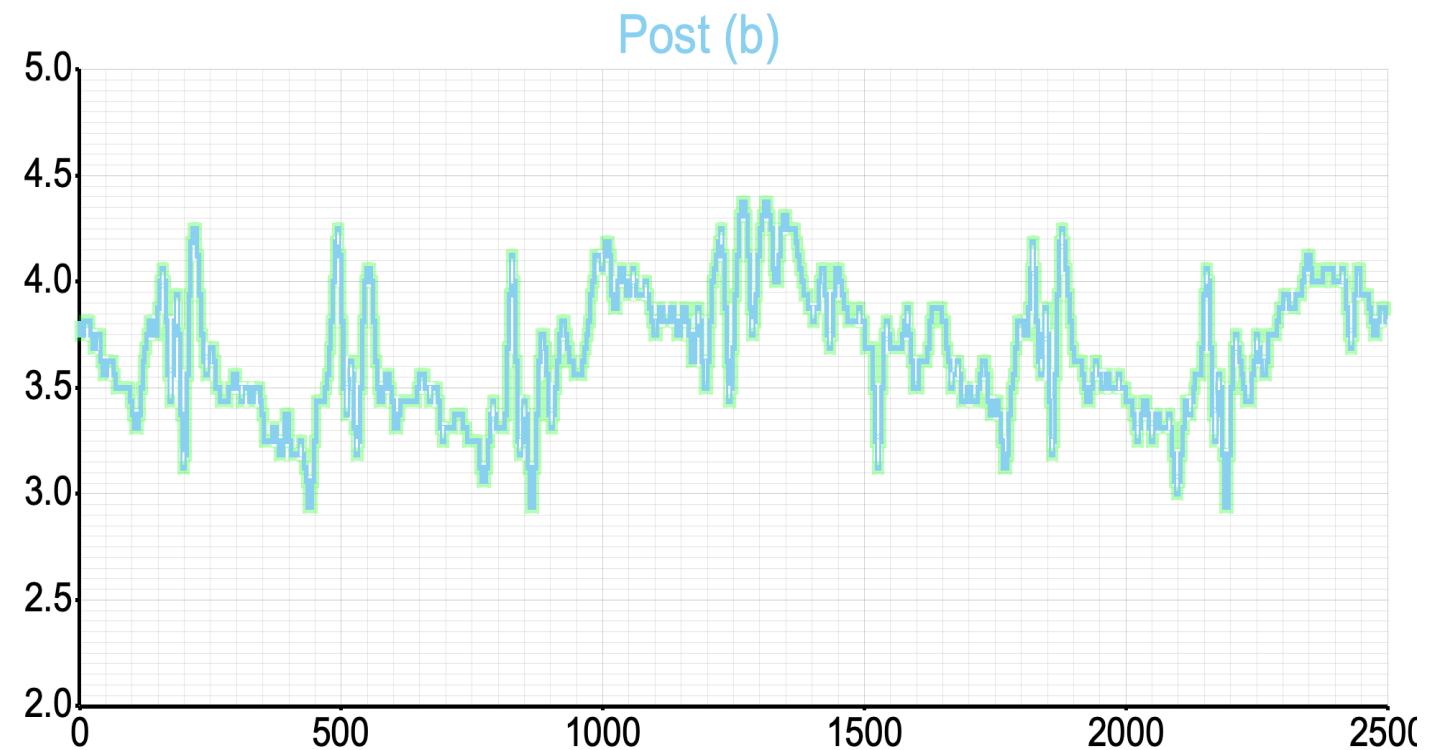
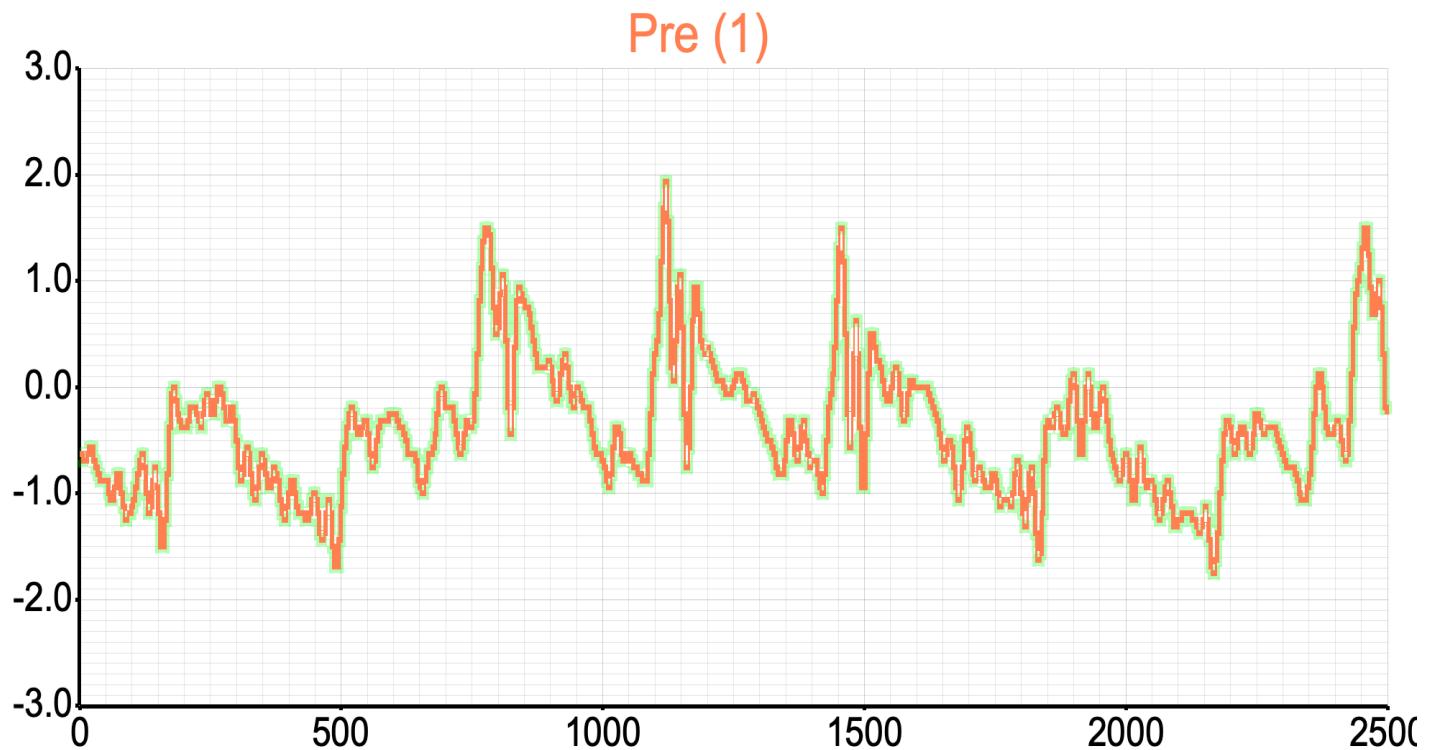
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	0.5	0.5	1.6	1.6
Cardiac Amp	2.3	2.3	1.0	1.0
High Freq Power	9057.3	9057.3	10247.6	10247.6

Patient Patient 10 - LJ - Sample 2



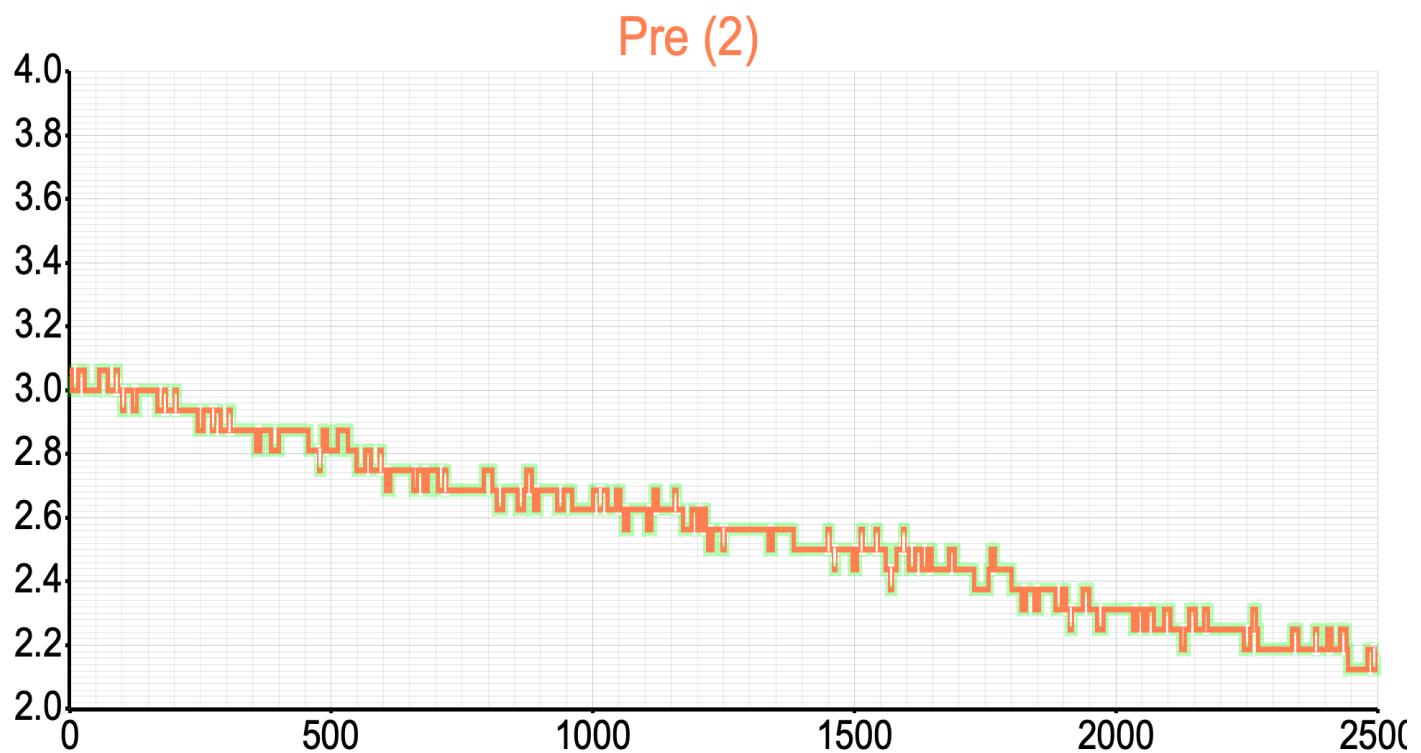
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	0.7	0.7	-	-
Cardiac Amp	3.9	3.9	-	-
High Freq Power	27775.8	27775.8	-	-

Patient Patient 10 - RJ - Sample 1



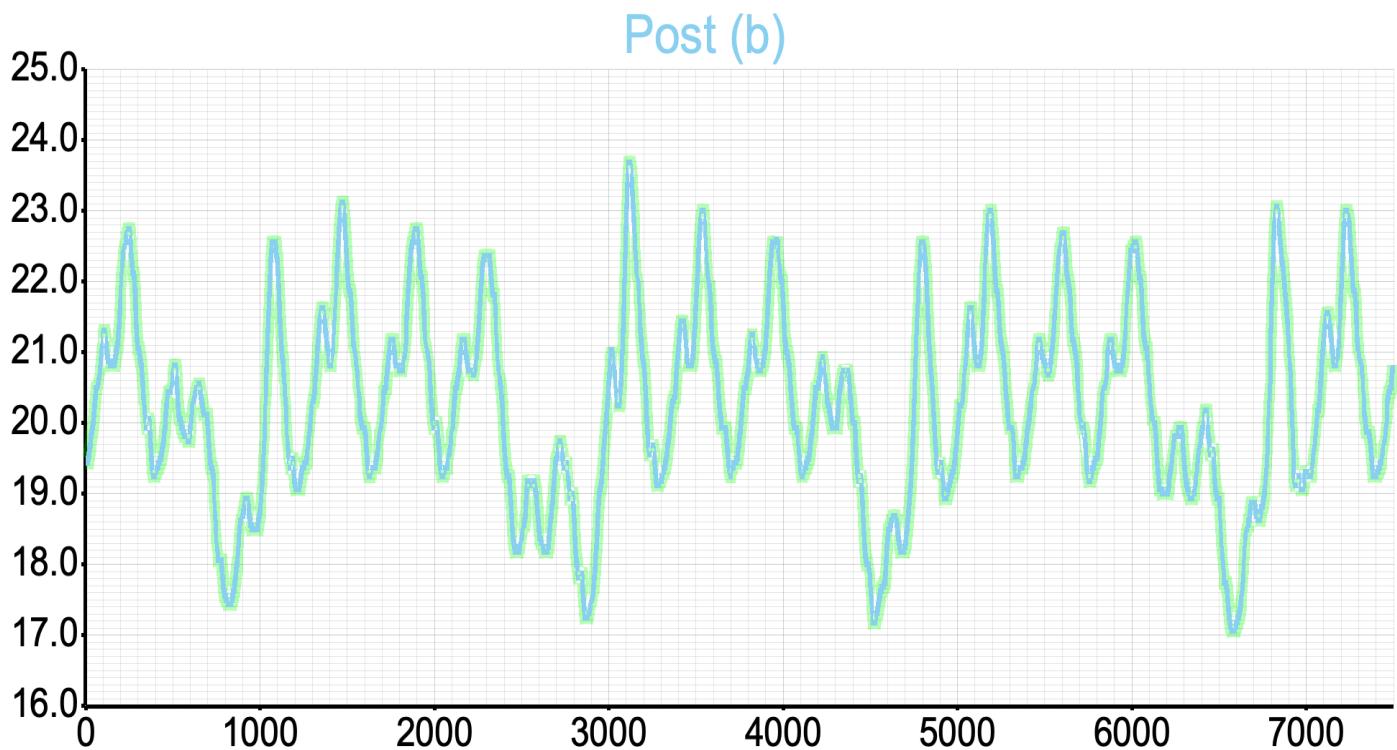
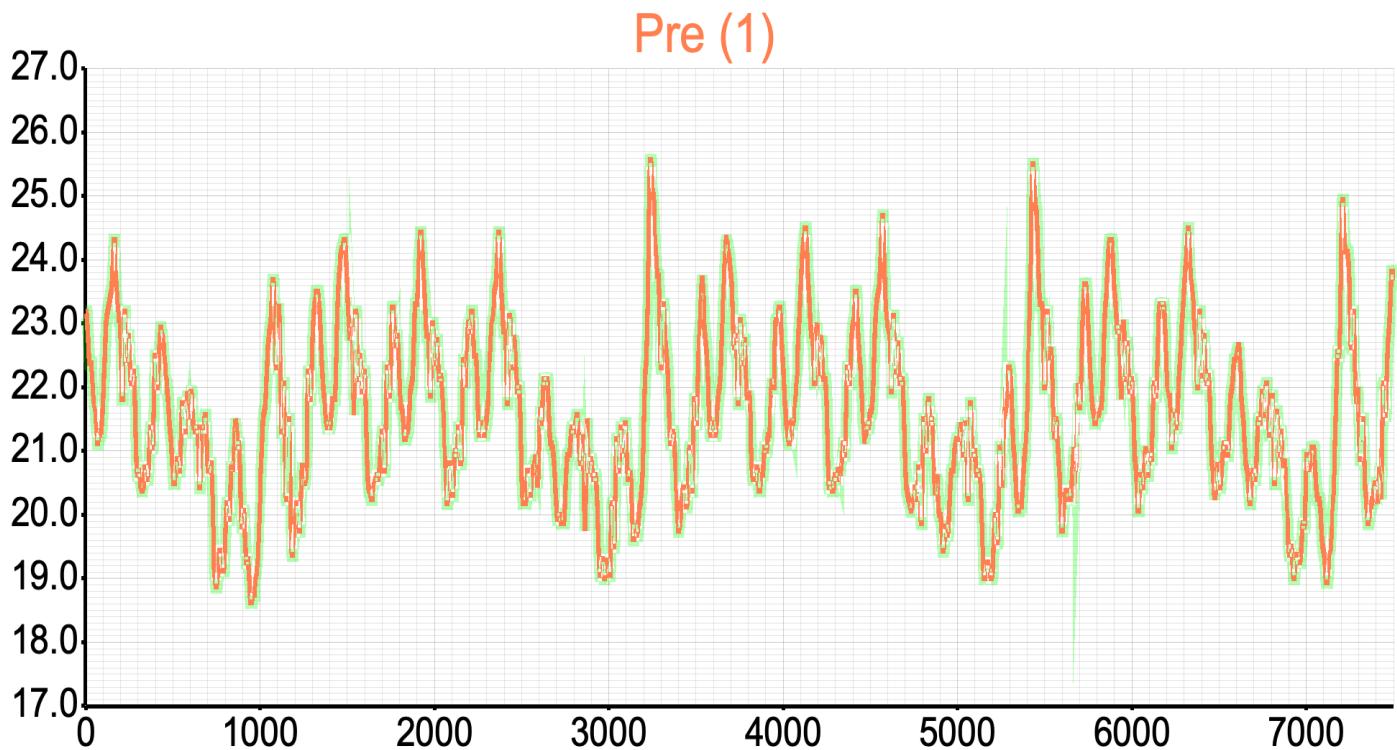
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	-0.4	-0.4	3.7	3.7
Cardiac Amp	2.7	2.7	0.9	0.9
High Freq Power	126383.0	126383.0	47980.9	47980.9

Patient Patient 10 - RJ - Sample 2



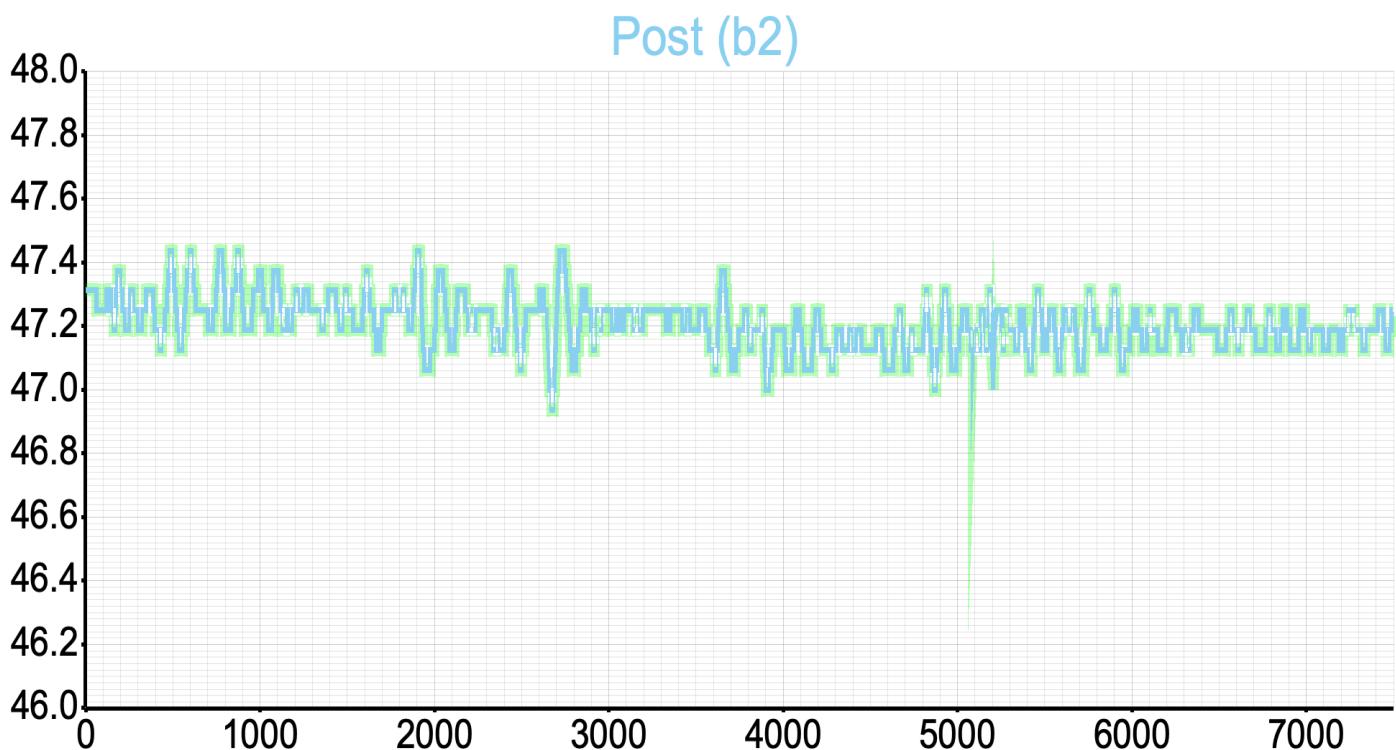
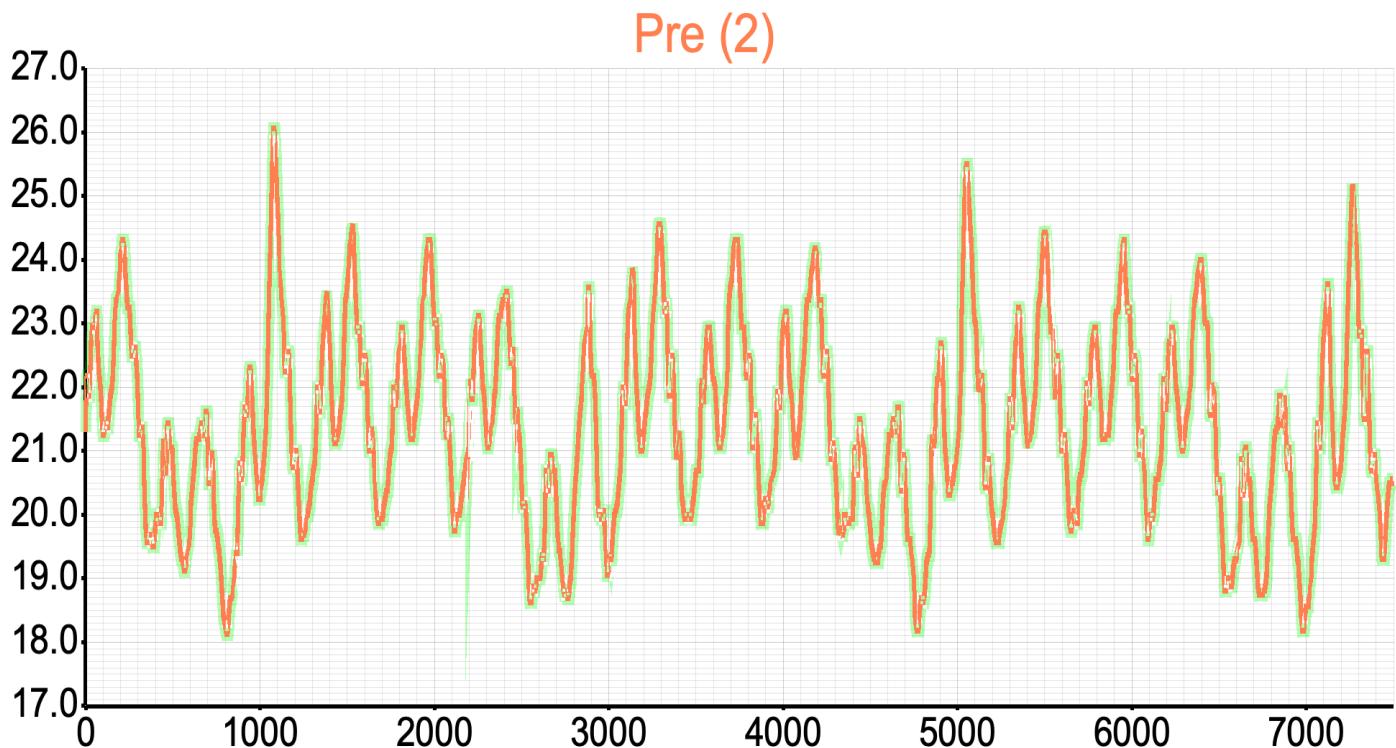
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	2.6	2.6	-	-
Cardiac Amp	0.2	0.2	-	-
High Freq Power	4527.3	4527.3	-	-

Patient Patient 11 - LJ - Sample 1



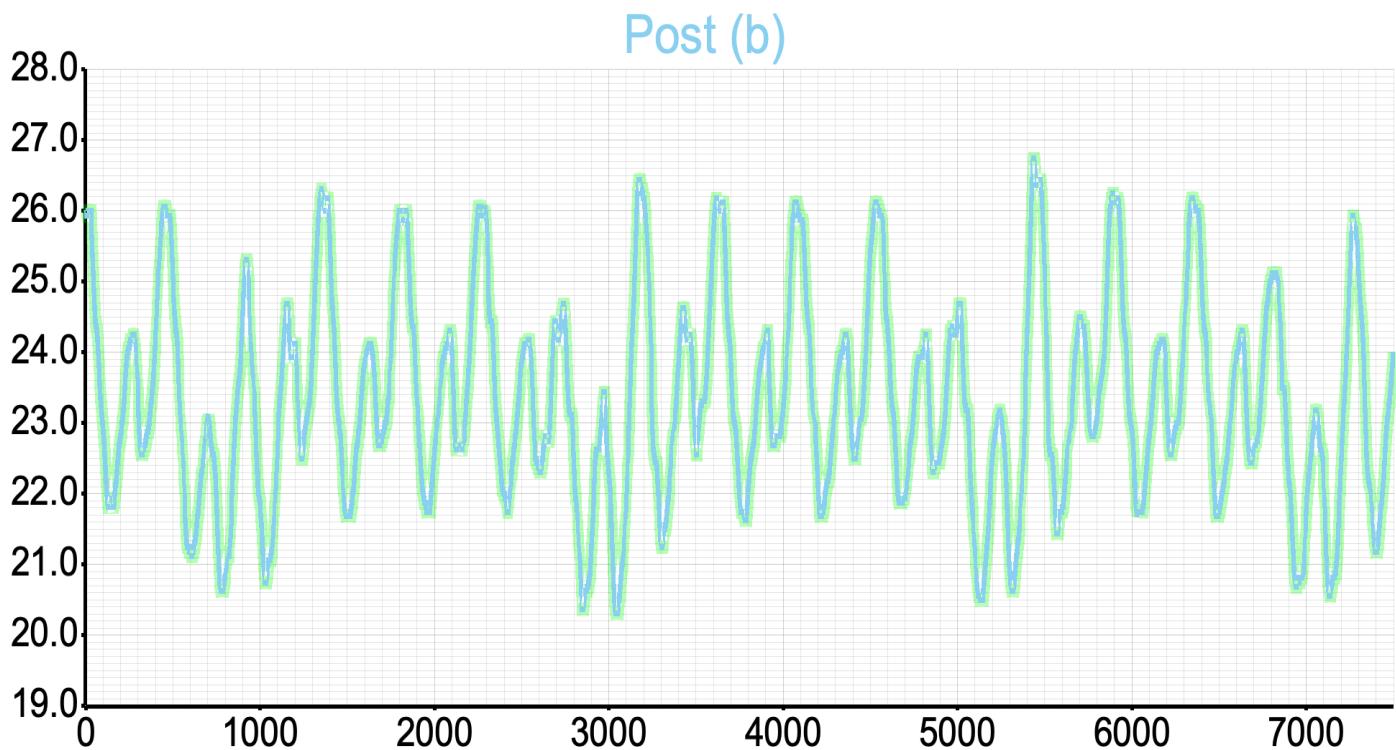
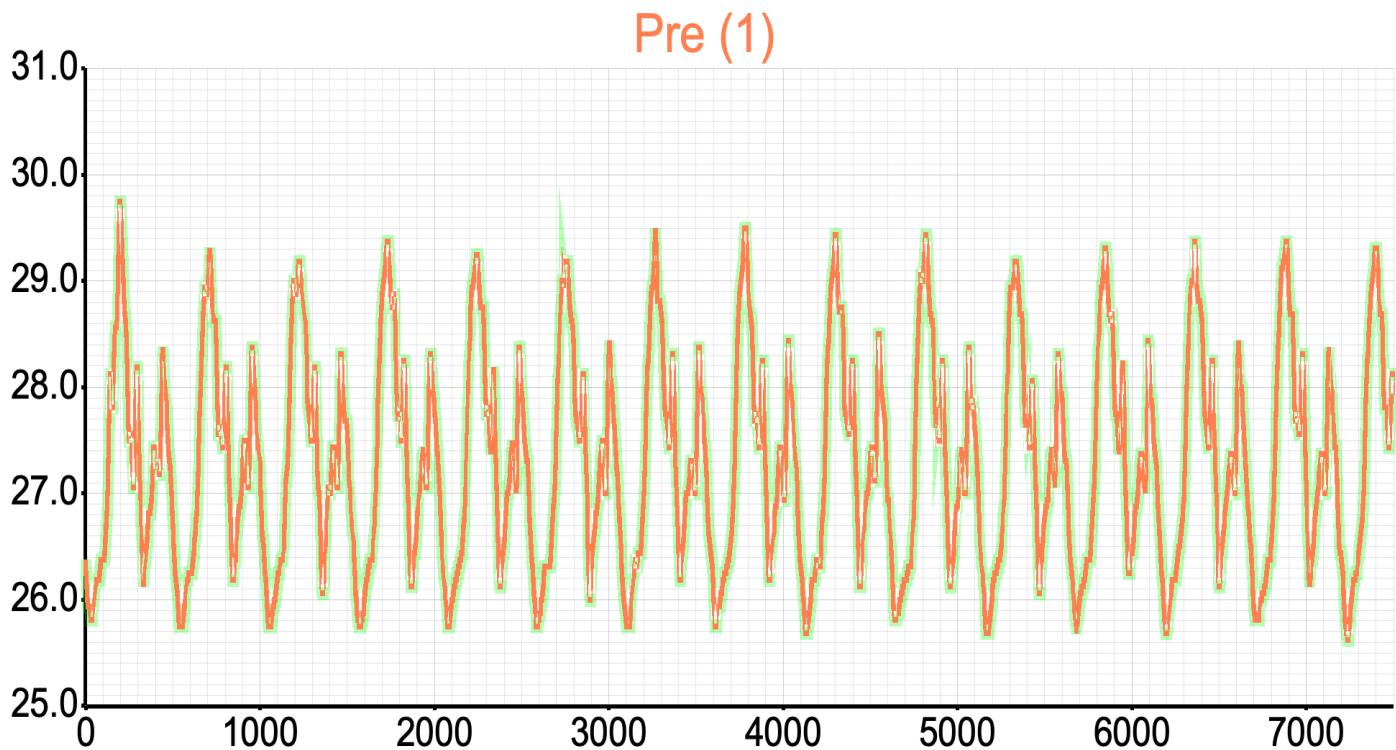
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	21.6	21.6	20.2	20.2
Cardiac Amp	5.0	5.0	4.0	4.0
High Freq Power	1325693.7	1325693.7	129790.5	129790.5

Patient Patient 11 - LJ - Sample 2



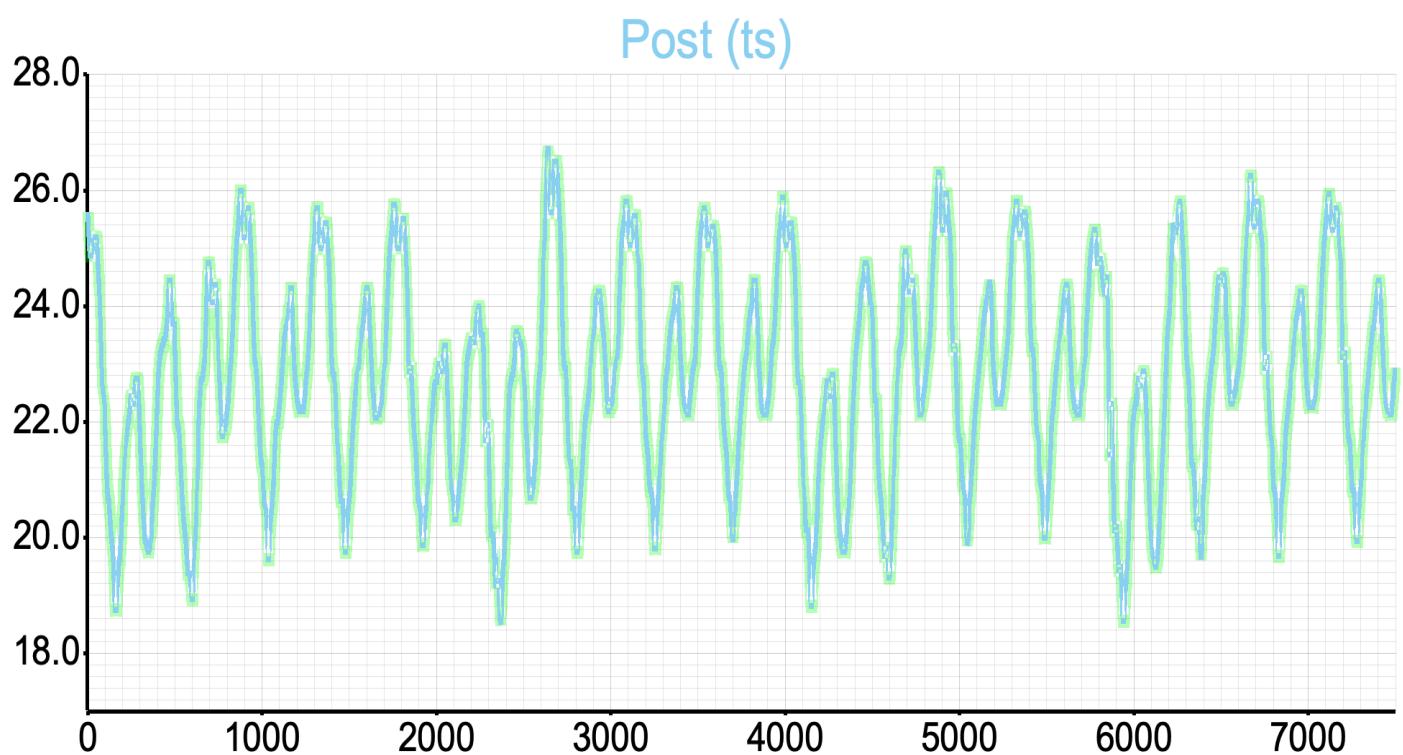
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	21.4	21.4	47.2	47.2
Cardiac Amp	5.5	5.5	0.4	0.4
High Freq Power	782969.9	782969.9	12417.4	12417.4

Patient Patient 11 - RJ - Sample 1



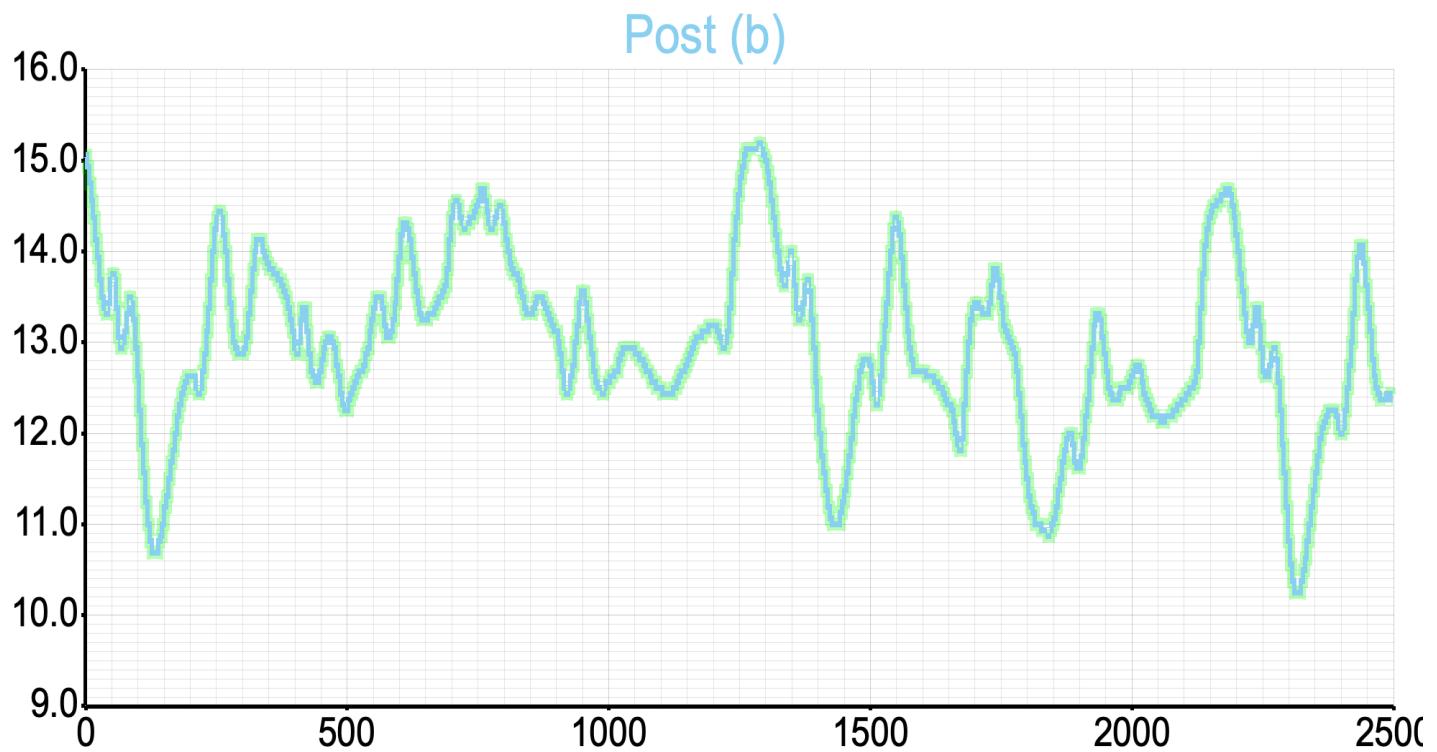
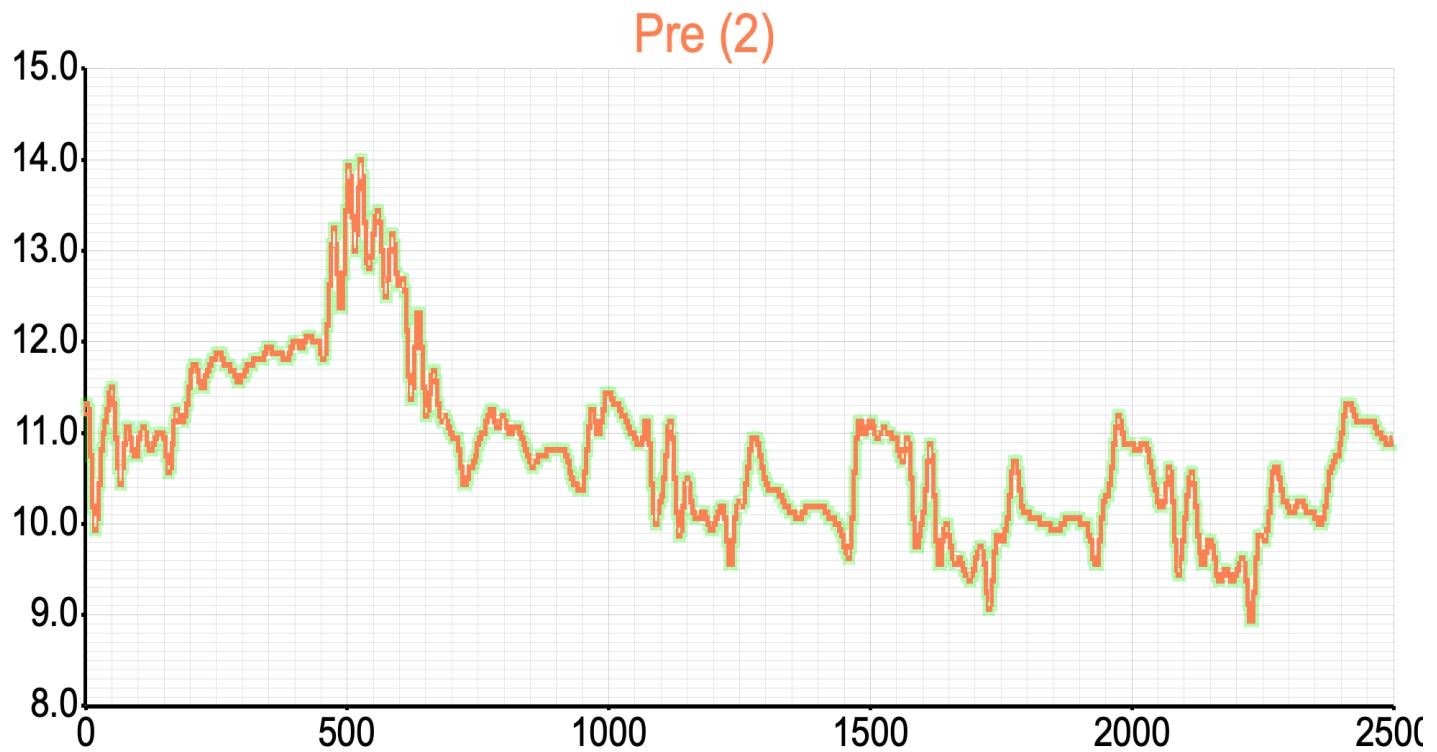
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	27.3	27.3	23.3	23.3
Cardiac Amp	4.0	4.0	4.7	4.7
High Freq Power	405059.9	405059.9	258863.4	258863.4

Patient Patient 11 - RJ - Sample 2



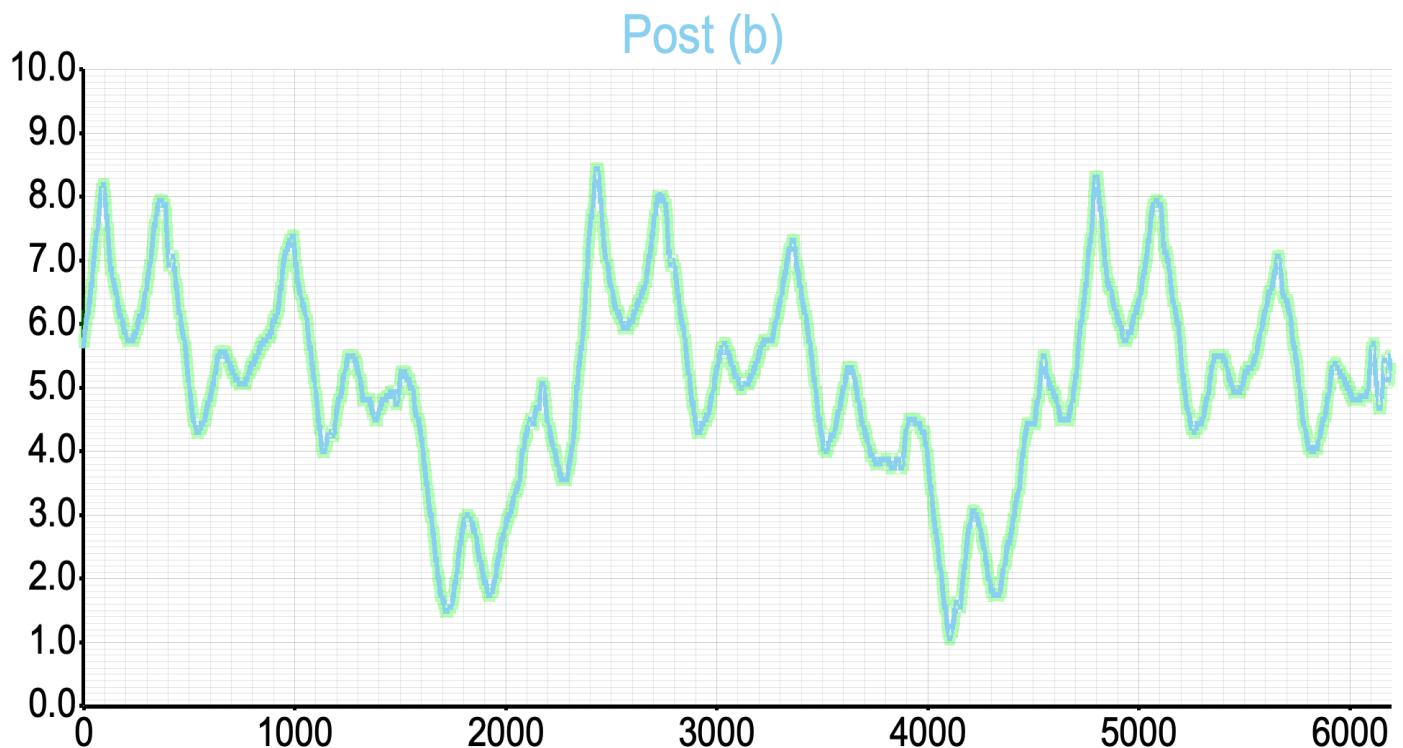
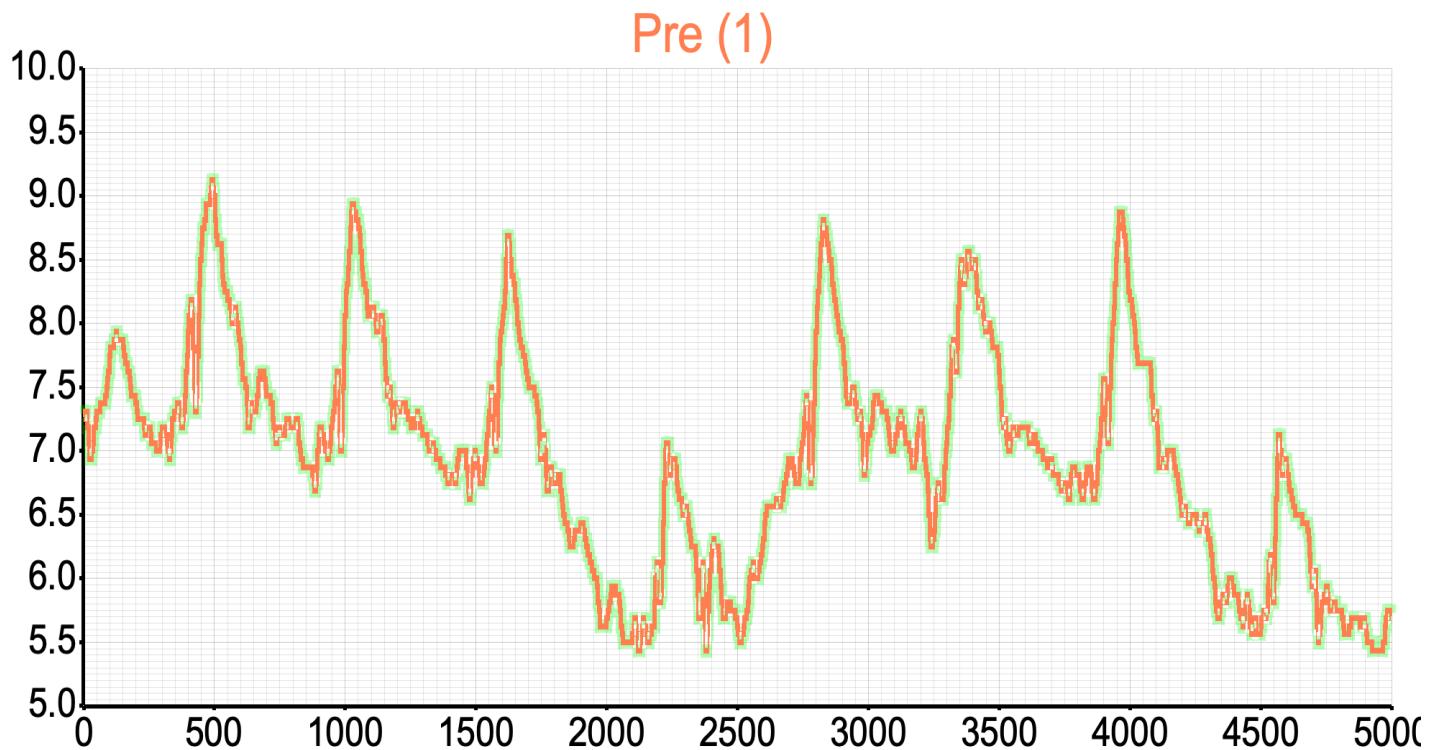
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	-	-	22.8	22.8
Cardiac Amp	-	-	6.0	6.0
High Freq Power	-	-	669091.2	669091.2

Patient Patient 12 - RJ - Sample 1



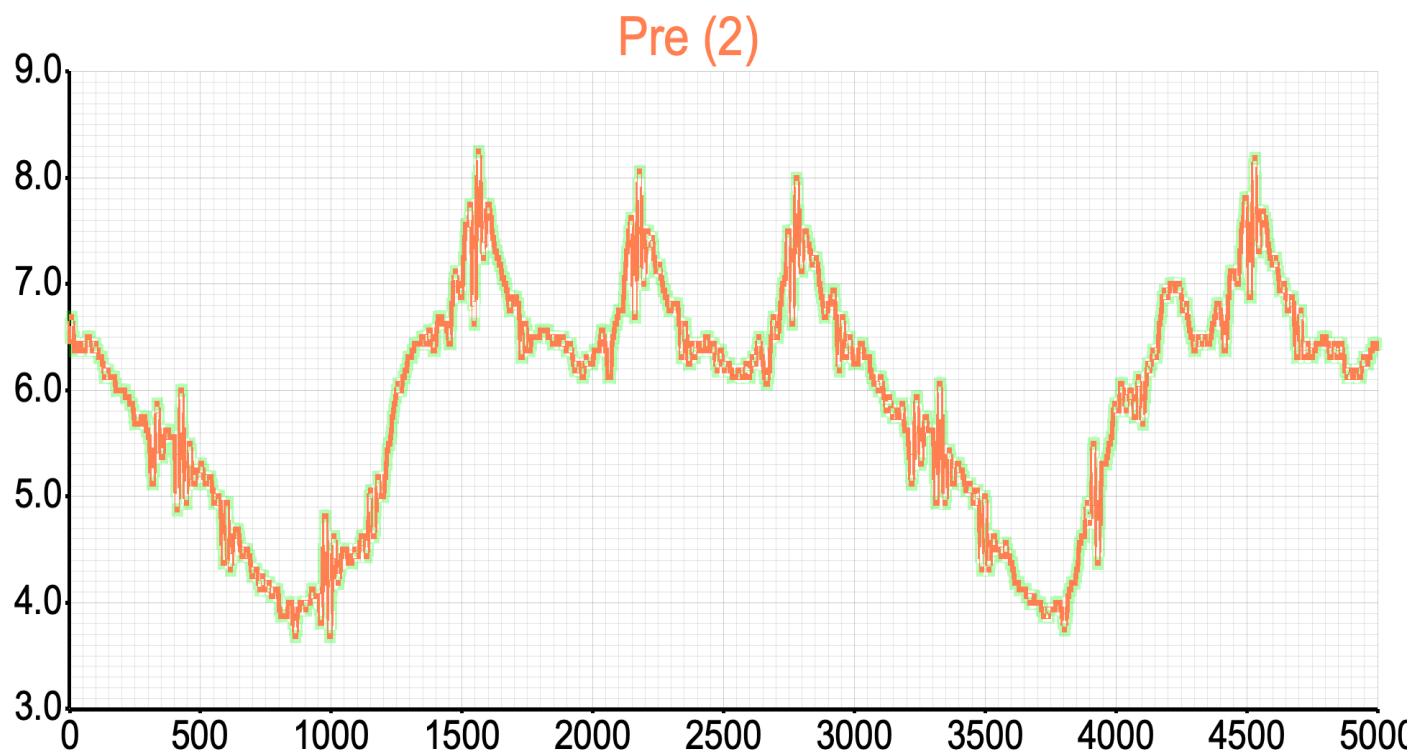
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	10.8	10.8	13.0	13.0
Cardiac Amp	3.0	3.0	3.7	3.7
High Freq Power	103450.1	103450.1	72689.7	72689.7

Patient Patient 13 - LJ - Sample 1



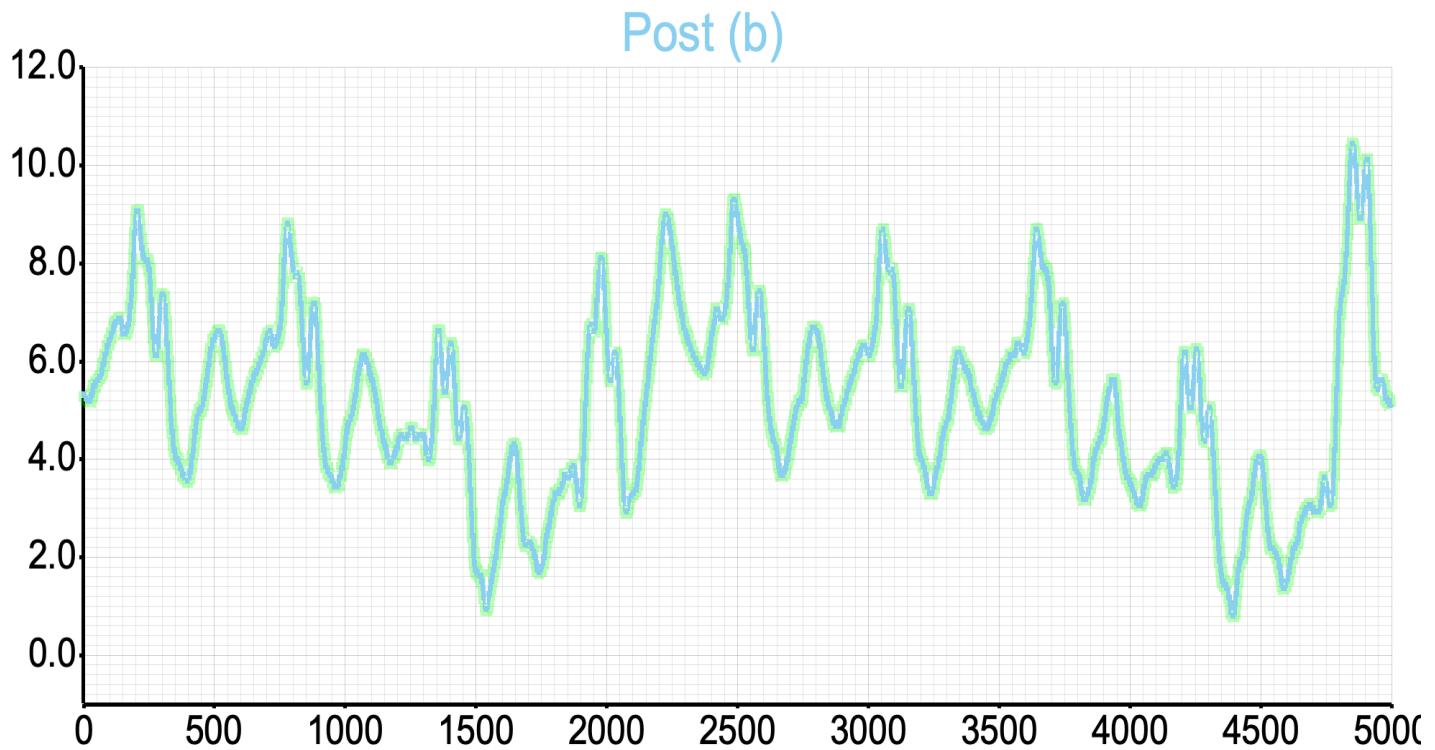
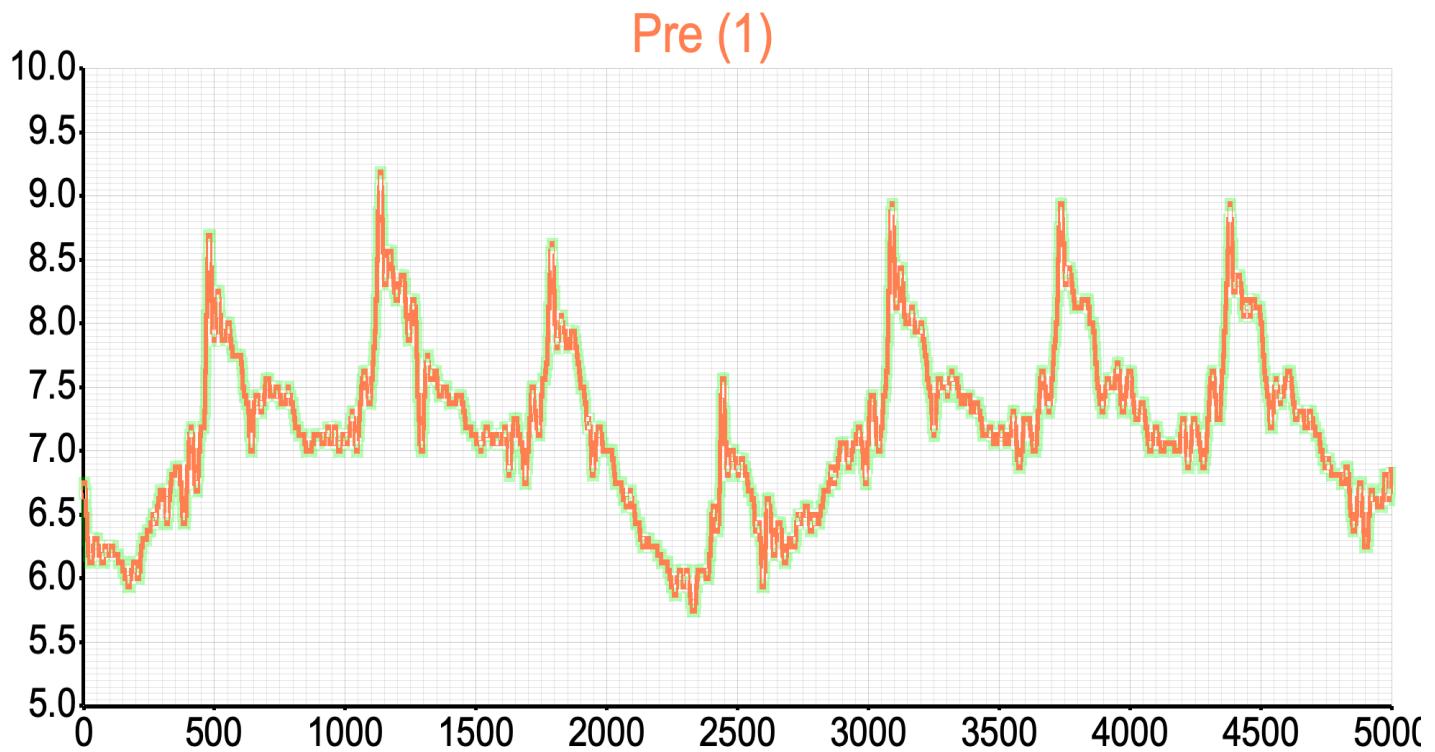
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	7.0	7.0	5.1	5.1
Cardiac Amp	1.9	1.9	3.1	3.1
High Freq Power	95706.3	95706.3	42173.6	42173.6

Patient Patient 13 - LJ - Sample 2



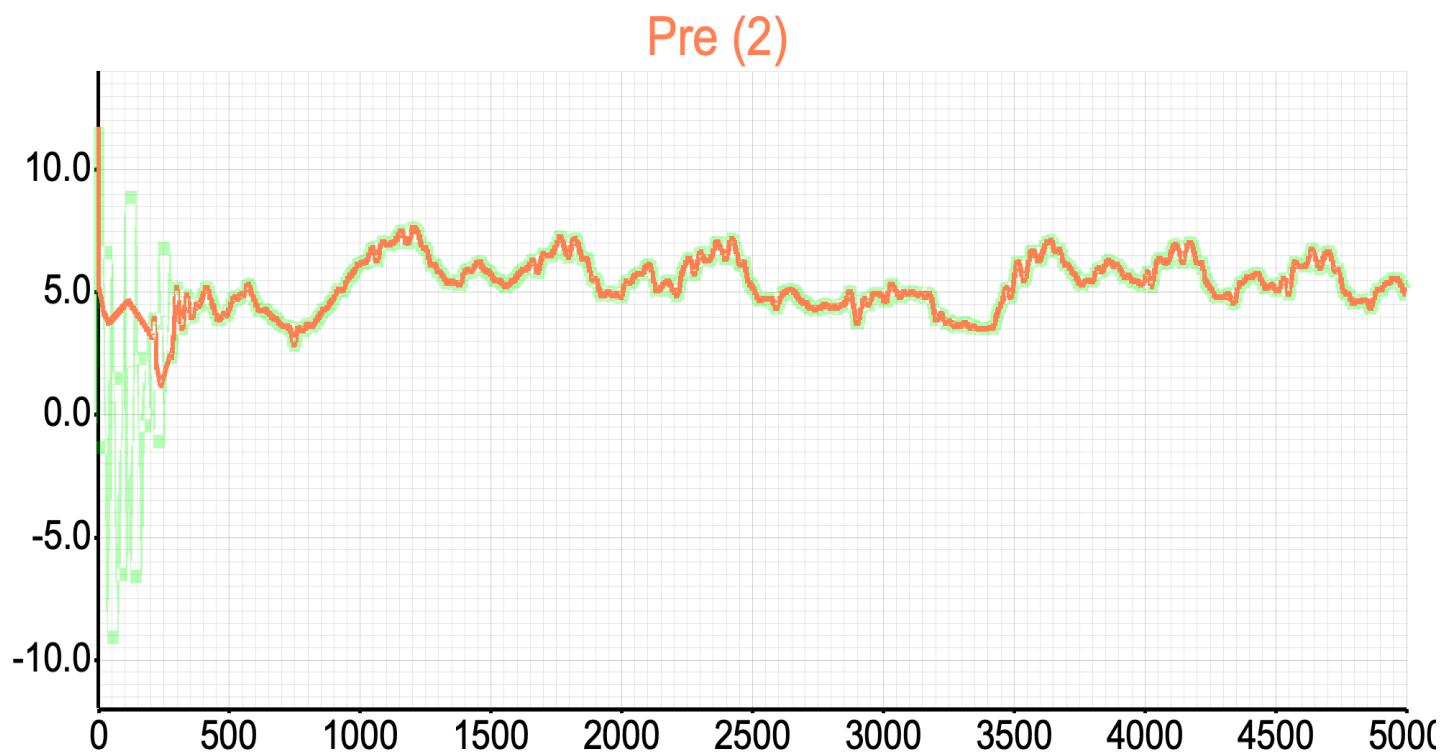
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	5.9	5.9	-	-
Cardiac Amp	1.8	1.8	-	-
High Freq Power	252406.7	252406.7	-	-

Patient Patient 13 - RJ - Sample 1



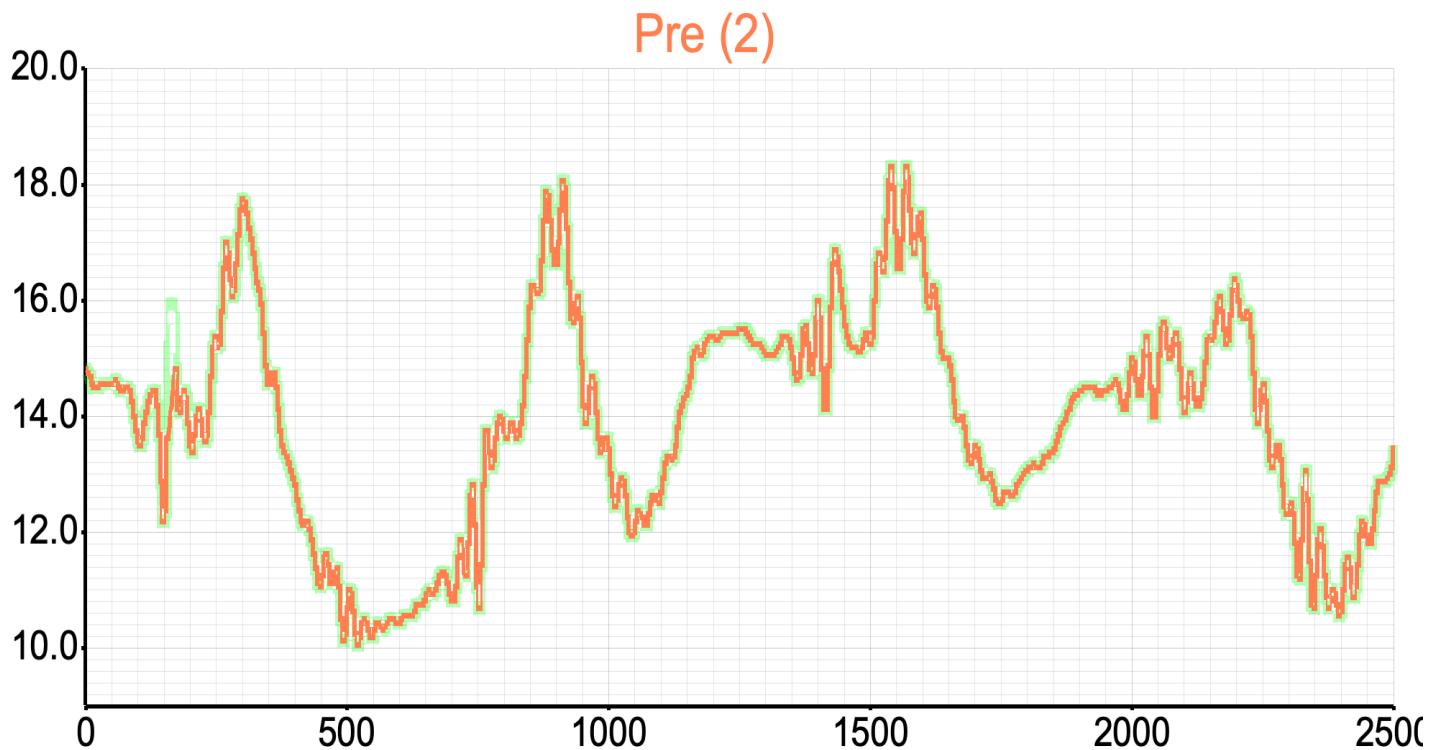
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	7.2	7.2	5.2	5.2
Cardiac Amp	2.1	2.1	5.3	5.3
High Freq Power	106710.2	106710.2	147789.2	147789.2

Patient Patient 13 - RJ - Sample 2



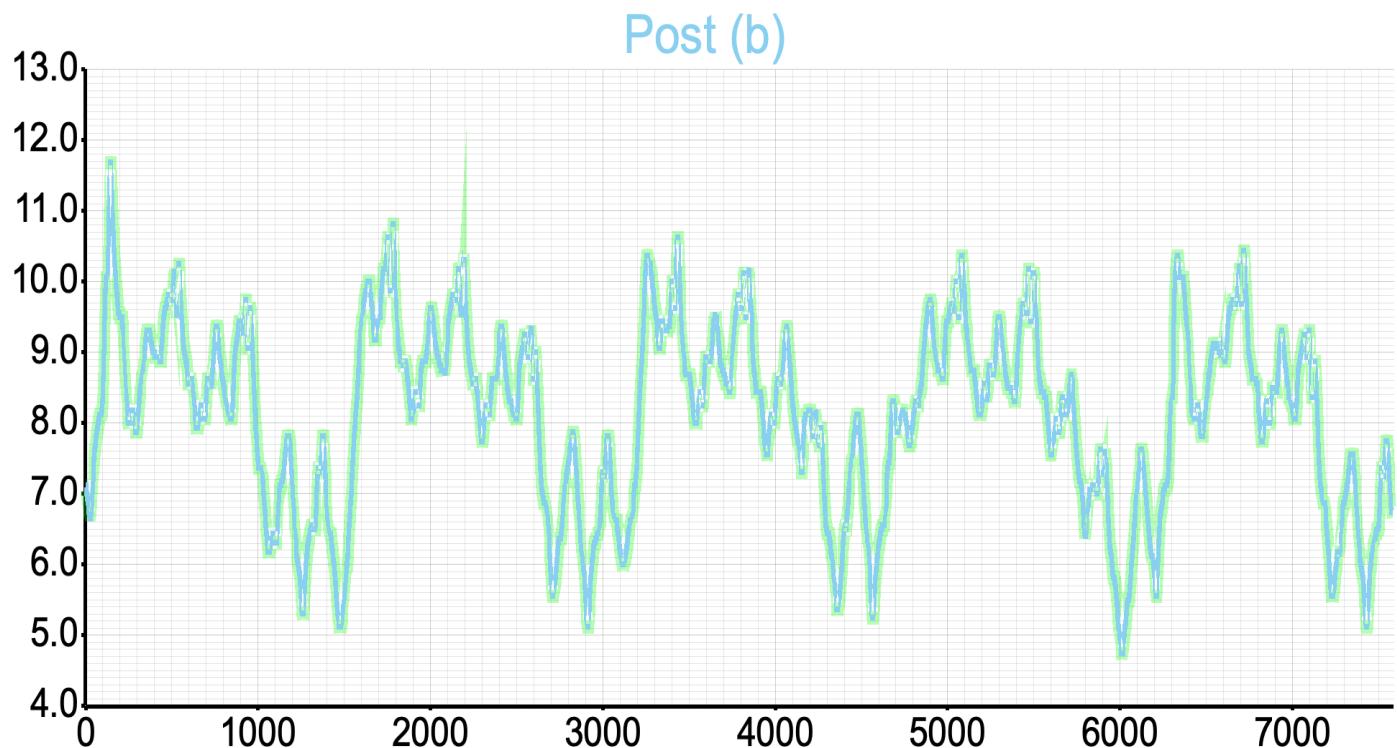
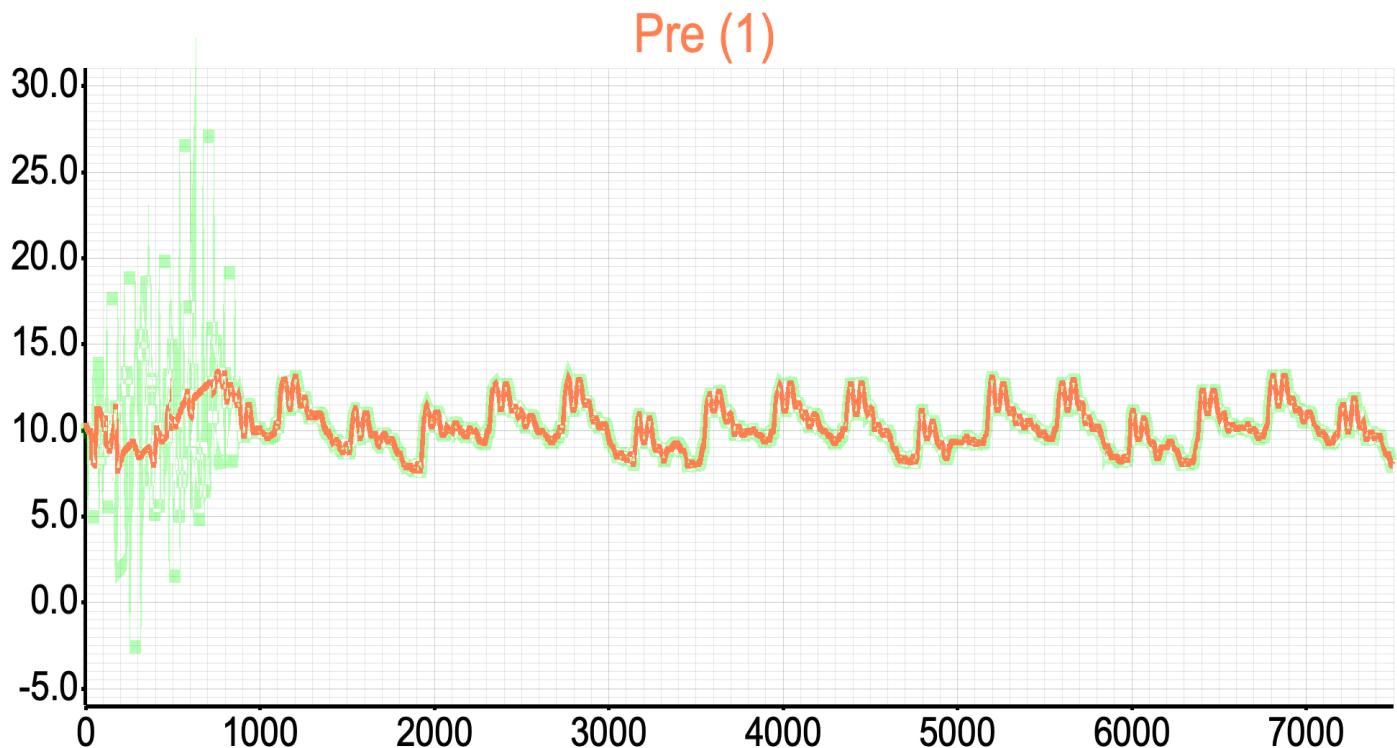
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	5.1	5.3	-	-
Cardiac Amp	16.7	8.1	-	-
High Freq Power	6574767.5	280814.4	-	-

Patient Patient 14 - RJ - Sample 1



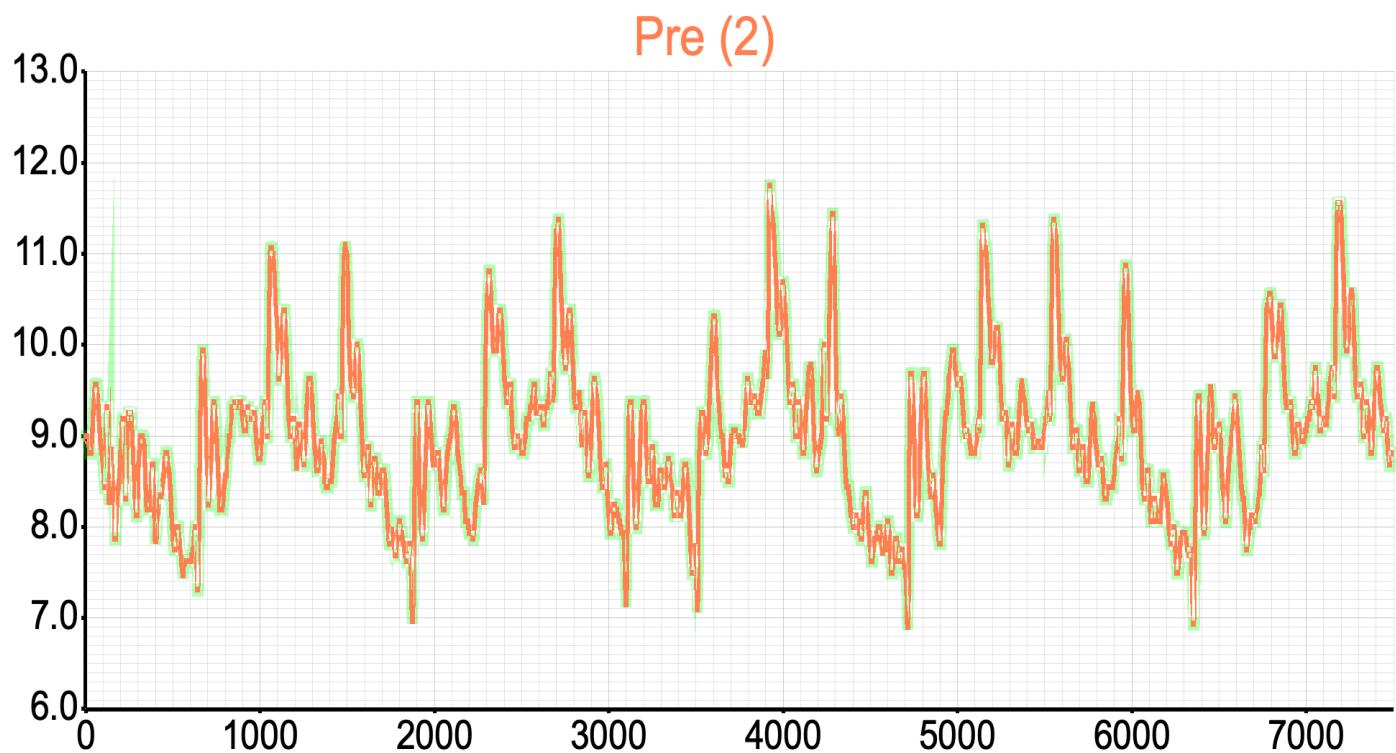
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	13.9	13.9	13.1	13.1
Cardiac Amp	4.4	4.4	3.1	3.1
High Freq Power	361517.8	327042.0	52269.1	52269.1

Patient Patient 15 - LJ - Sample 1



Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	10.2	10.2	8.1	8.1
Cardiac Amp	27.0	2.9	4.1	4.1
High Freq Power	22678206.8	710805.4	287802.0	287802.0

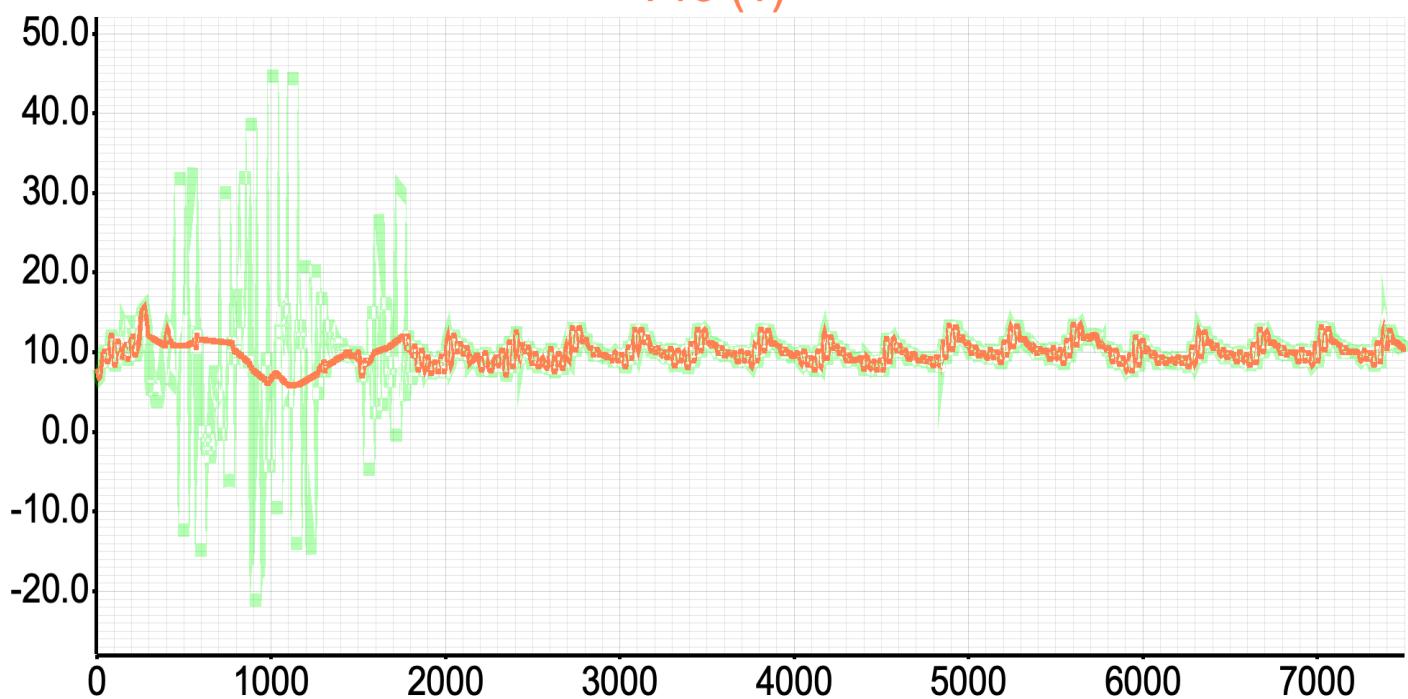
Patient Patient 15 - LJ - Sample 2



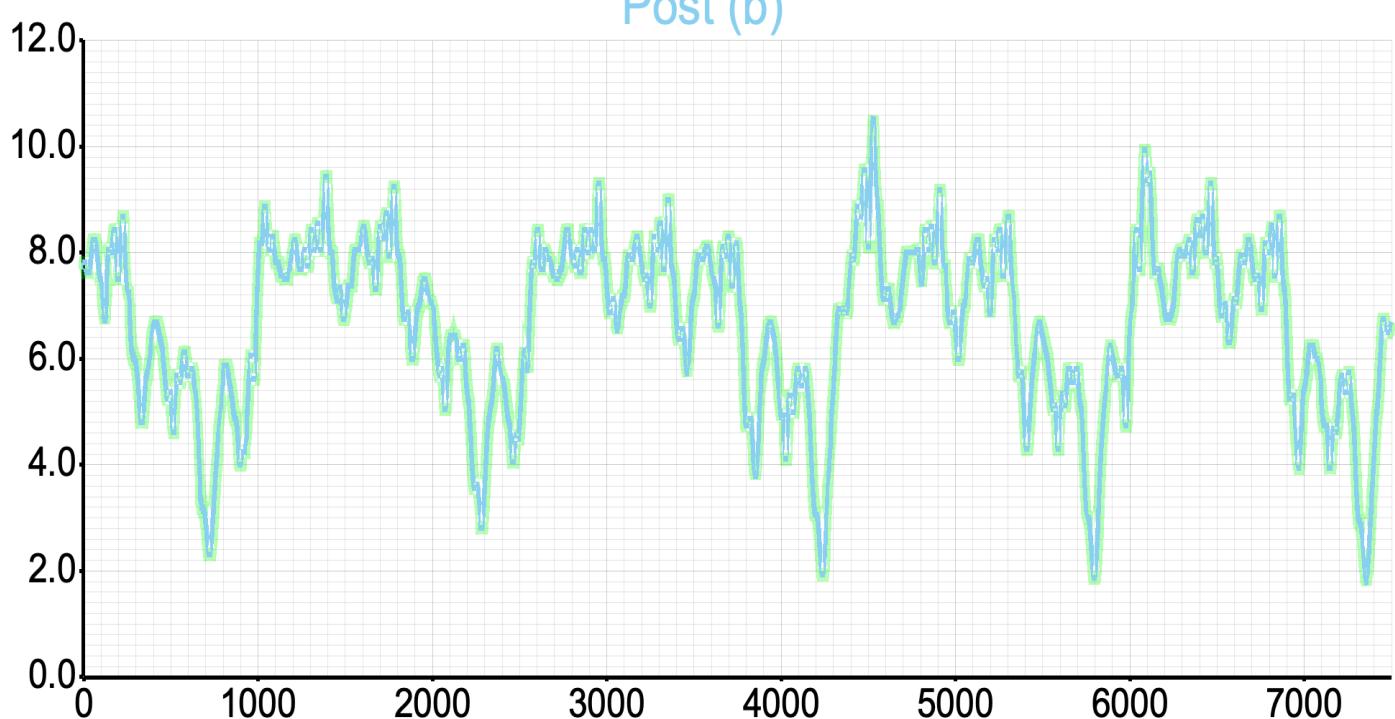
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	9.0	9.0	-	-
Cardiac Amp	3.3	3.3	-	-
High Freq Power	533390.7	533390.7	-	-

Patient Patient 15 - RJ - Sample 1

Pre (1)

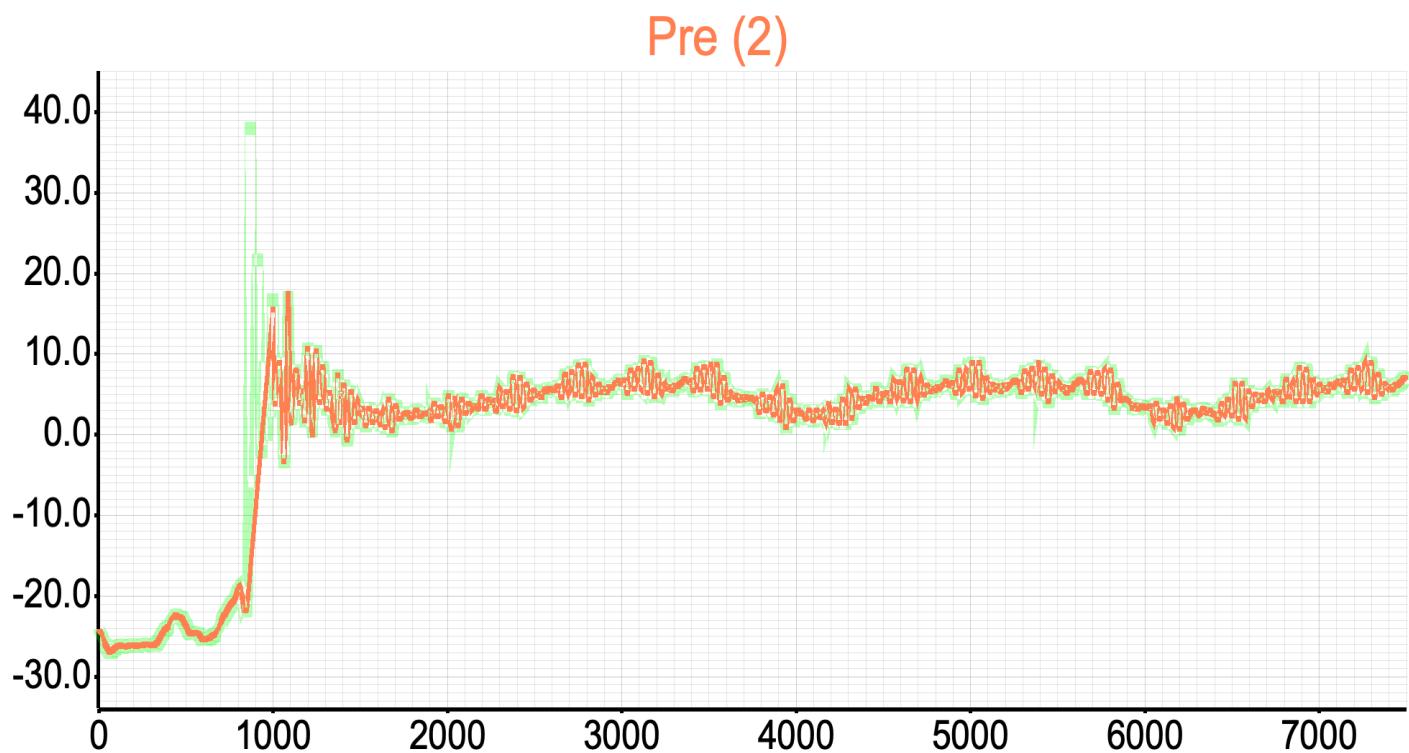


Post (b)



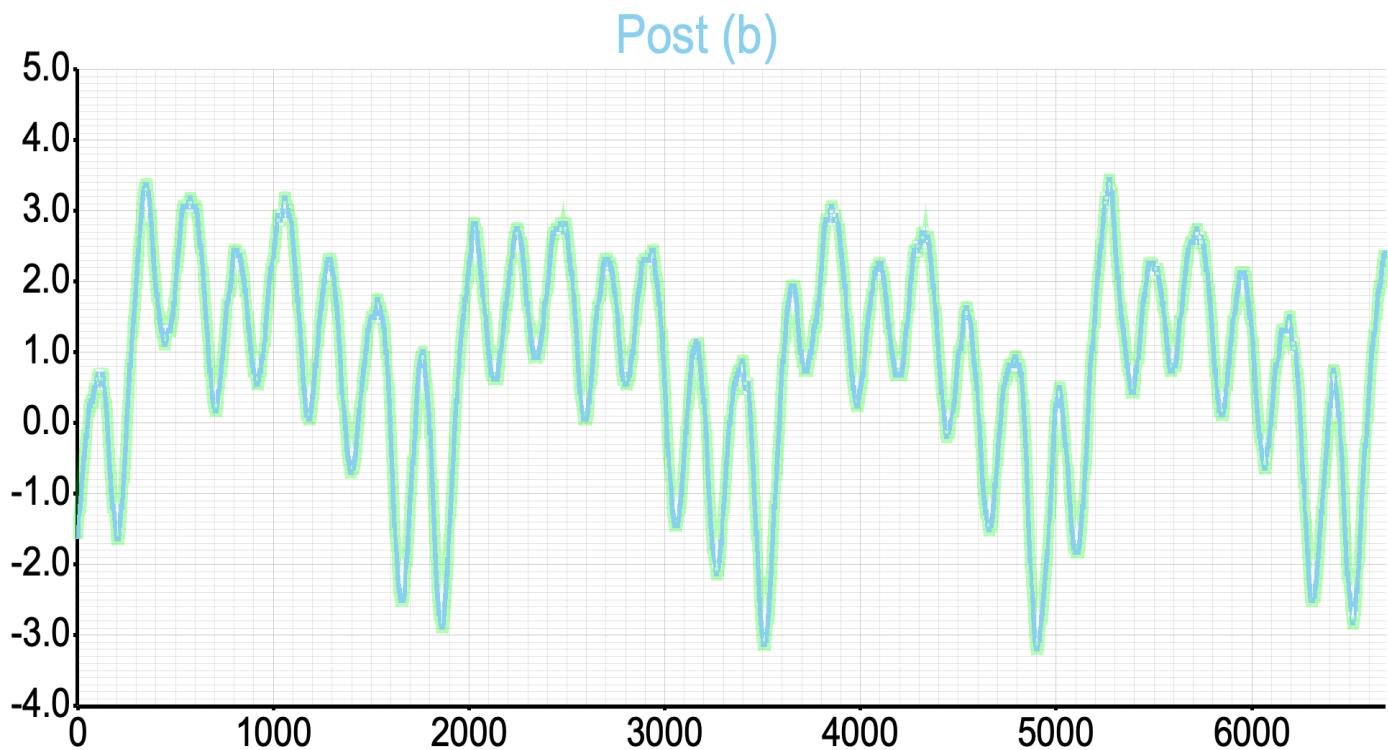
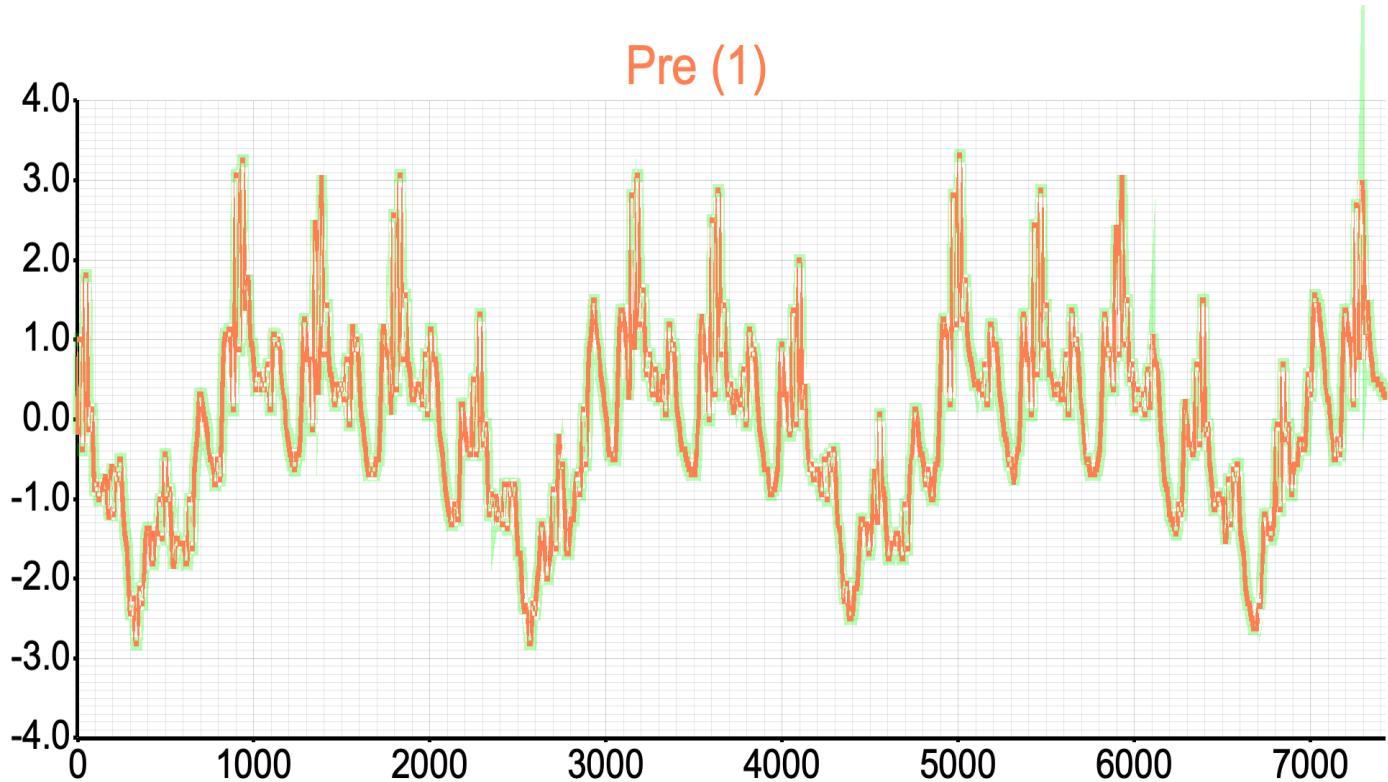
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	9.9	10.0	6.7	6.7
Cardiac Amp	61.4	5.4	5.3	5.3
High Freq Power	186677294.3	8706722.8	718329.9	718329.9

Patient Patient 15 - RJ - Sample 2



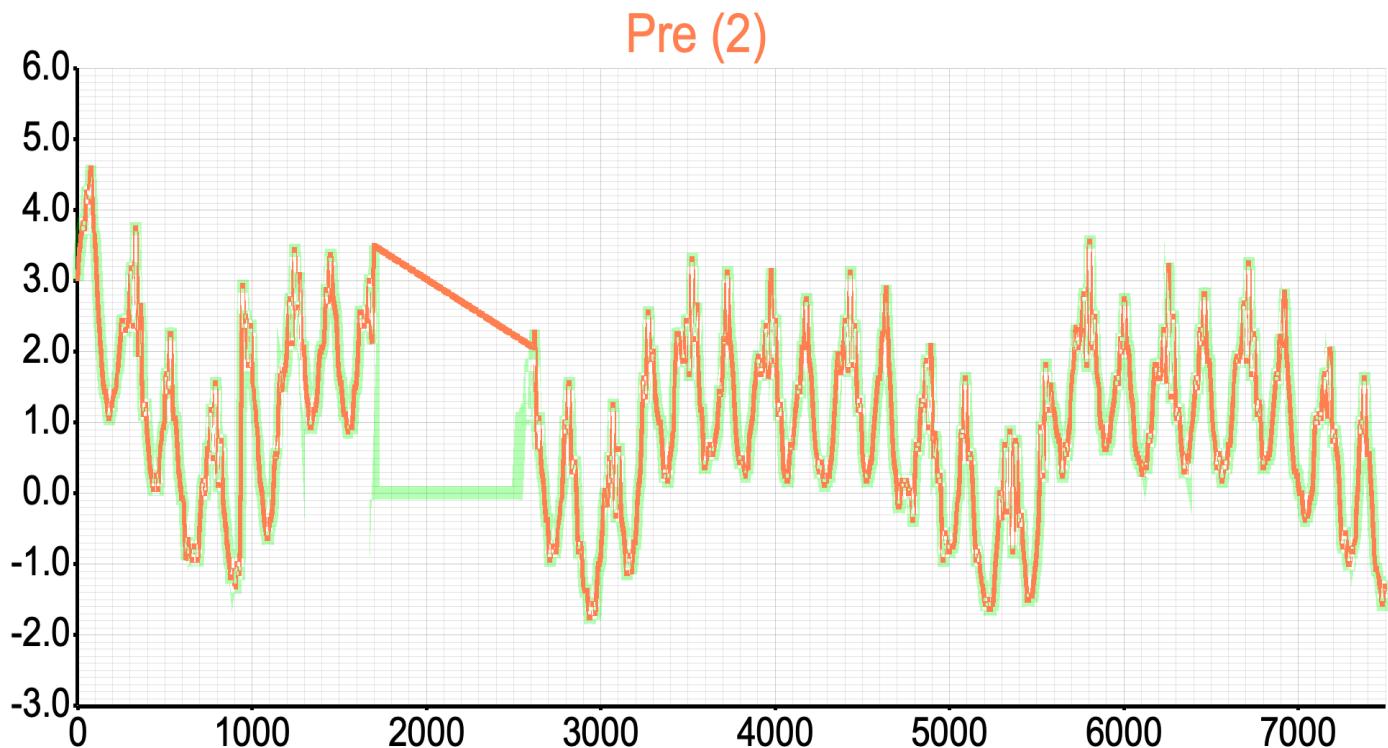
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	1.6	1.4	-	-
Cardiac Amp	33.0	12.8	-	-
High Freq Power	90398099.6	34214027.3	-	-

Patient Patient 16 - LJ - Sample 1

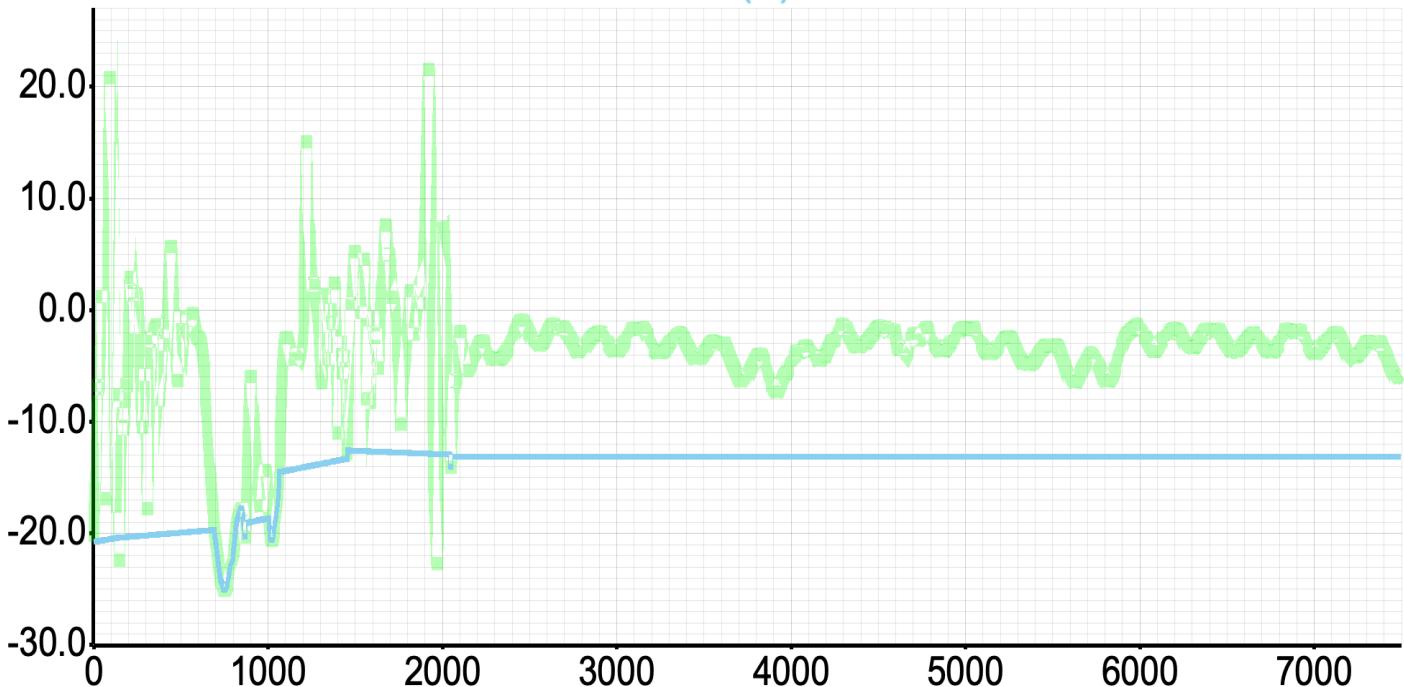


Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	-0.1	-0.1	0.8	0.8
Cardiac Amp	3.9	3.9	3.8	3.8
High Freq Power	2314161.4	2314161.4	190784.3	190784.3

Patient Patient 16 - RJ - Sample 1

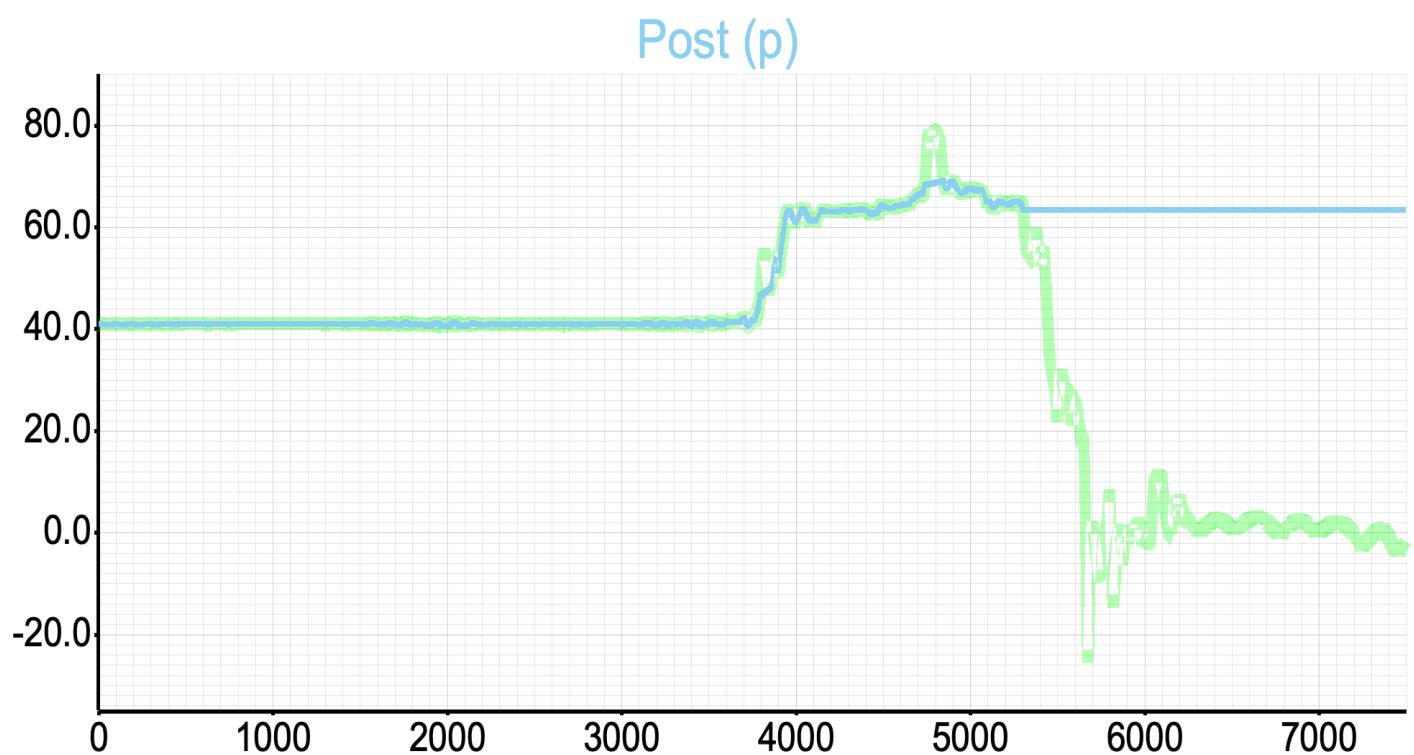


Post (b)



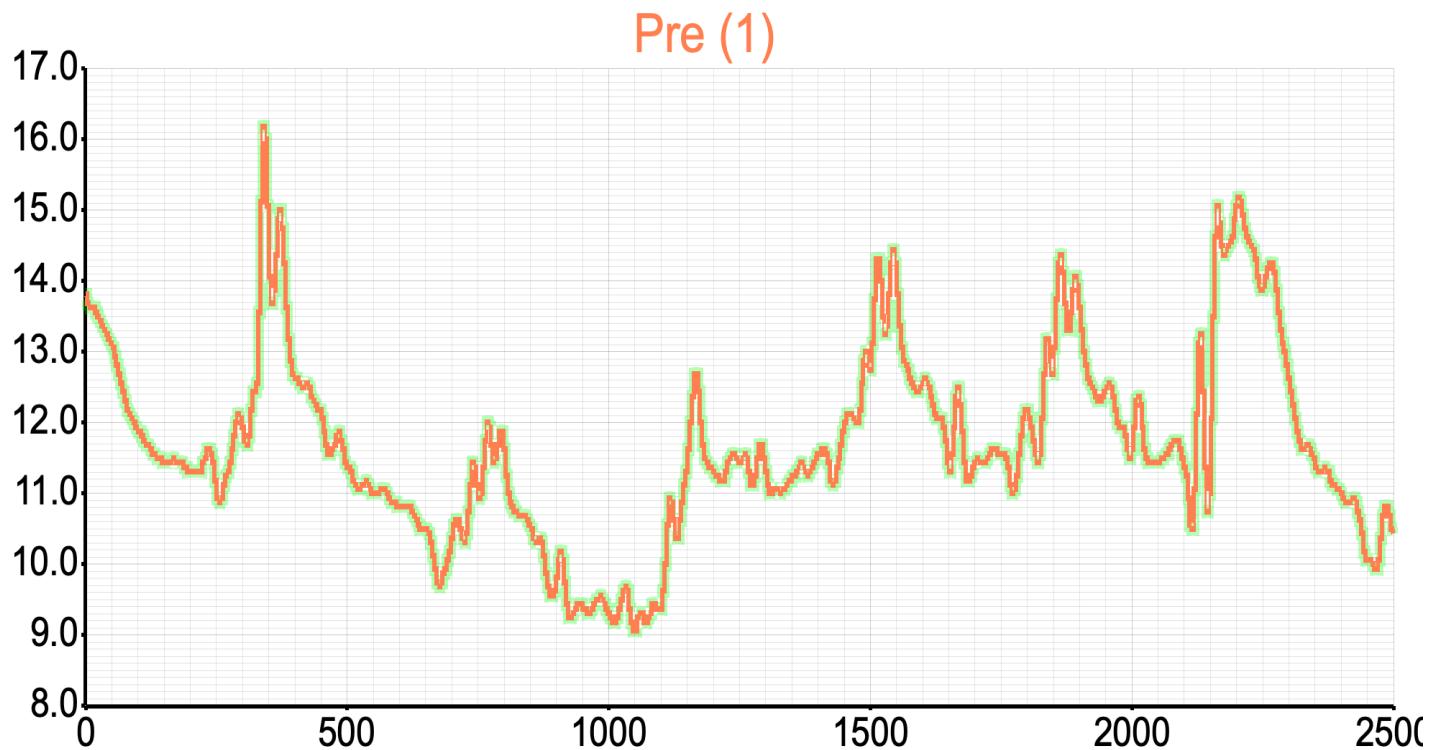
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	0.8	1.2	-3.8	-14.1
Cardiac Amp	3.8	2.8	30.3	4.5
High Freq Power	1332315.7	1204332.1	28397577.4	666708.4

Patient Patient 16 - RJ - Sample 2

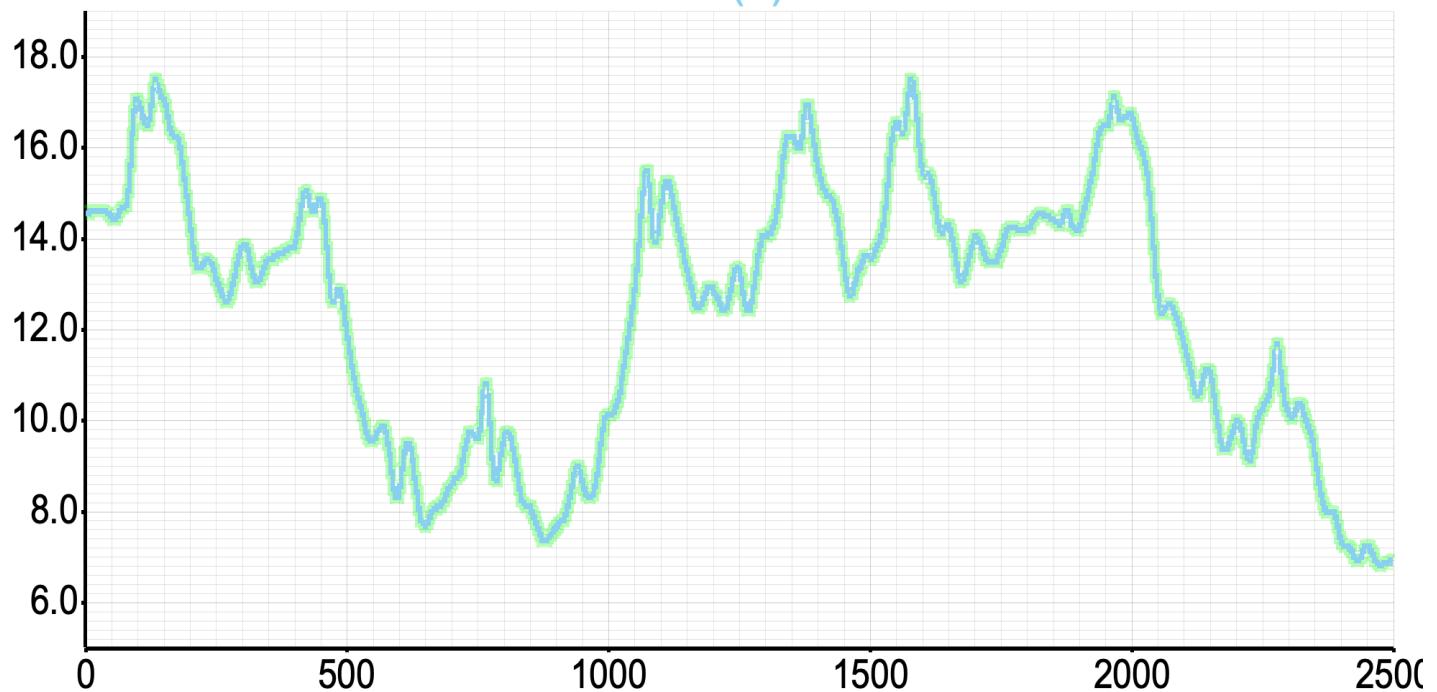


Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	-	-	35.6	52.1
Cardiac Amp	-	-	33.6	2.3
High Freq Power	-	-	31470883.9	4990261.2

Patient Patient 17 - LJ - Sample 1

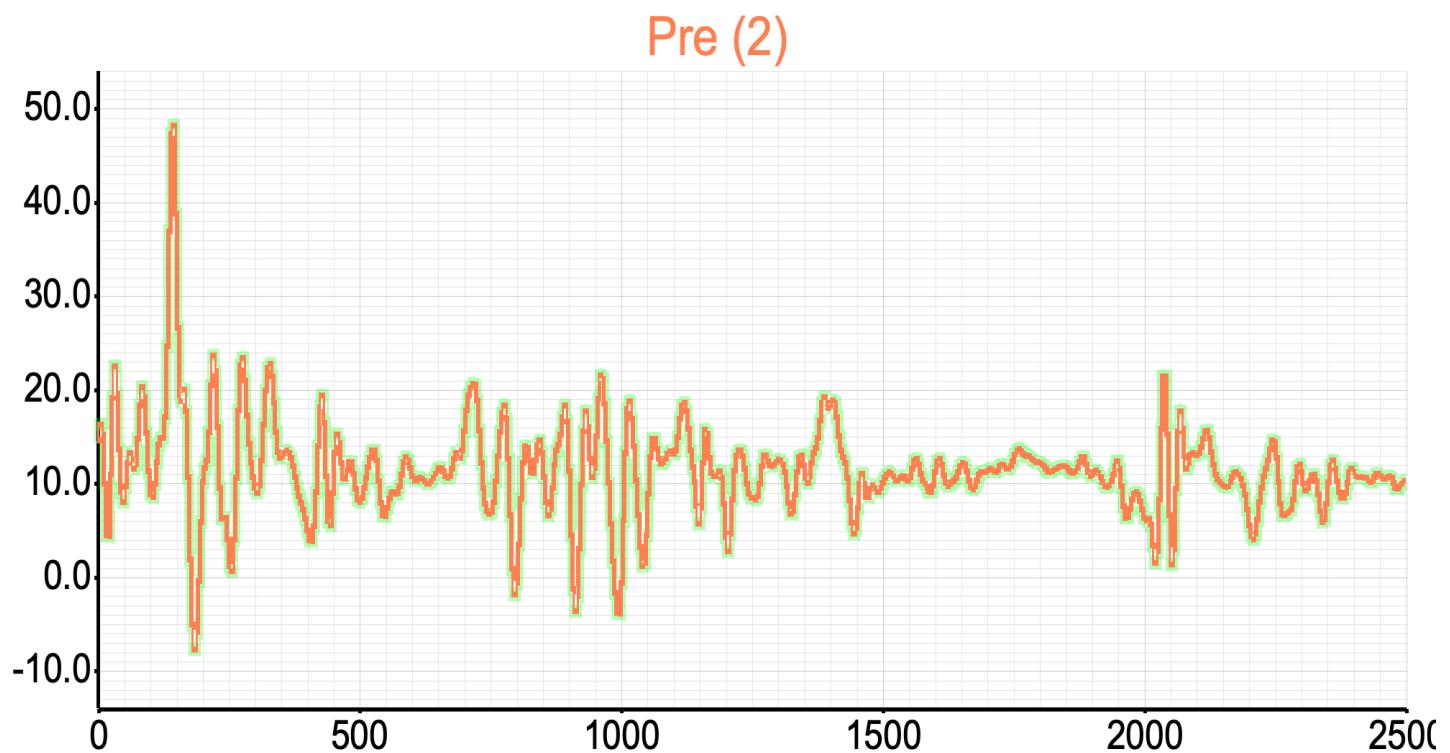


Post (b)



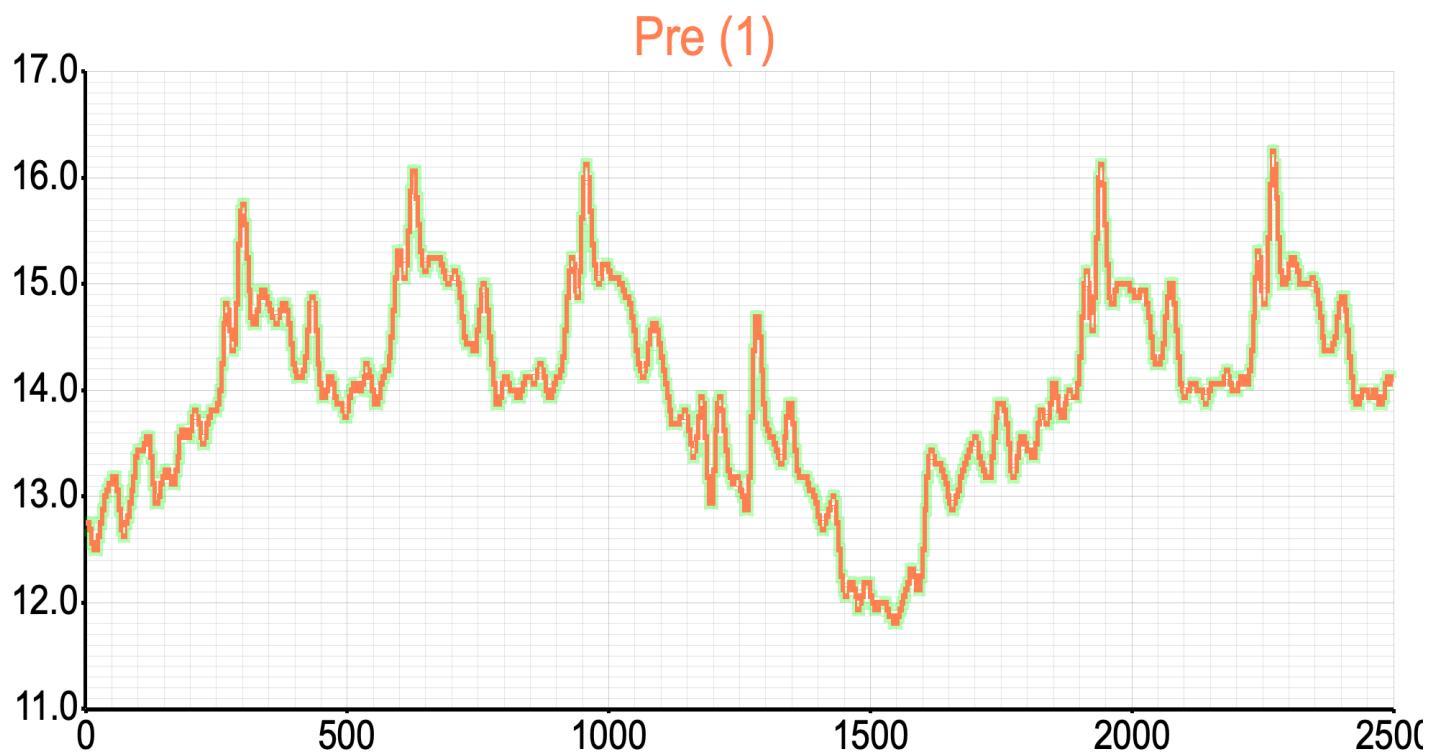
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	11.7	11.7	12.4	12.4
Cardiac Amp	4.4	4.4	4.6	4.6
High Freq Power	262531.0	262531.0	323246.3	323246.3

Patient Patient 17 - LJ - Sample 2



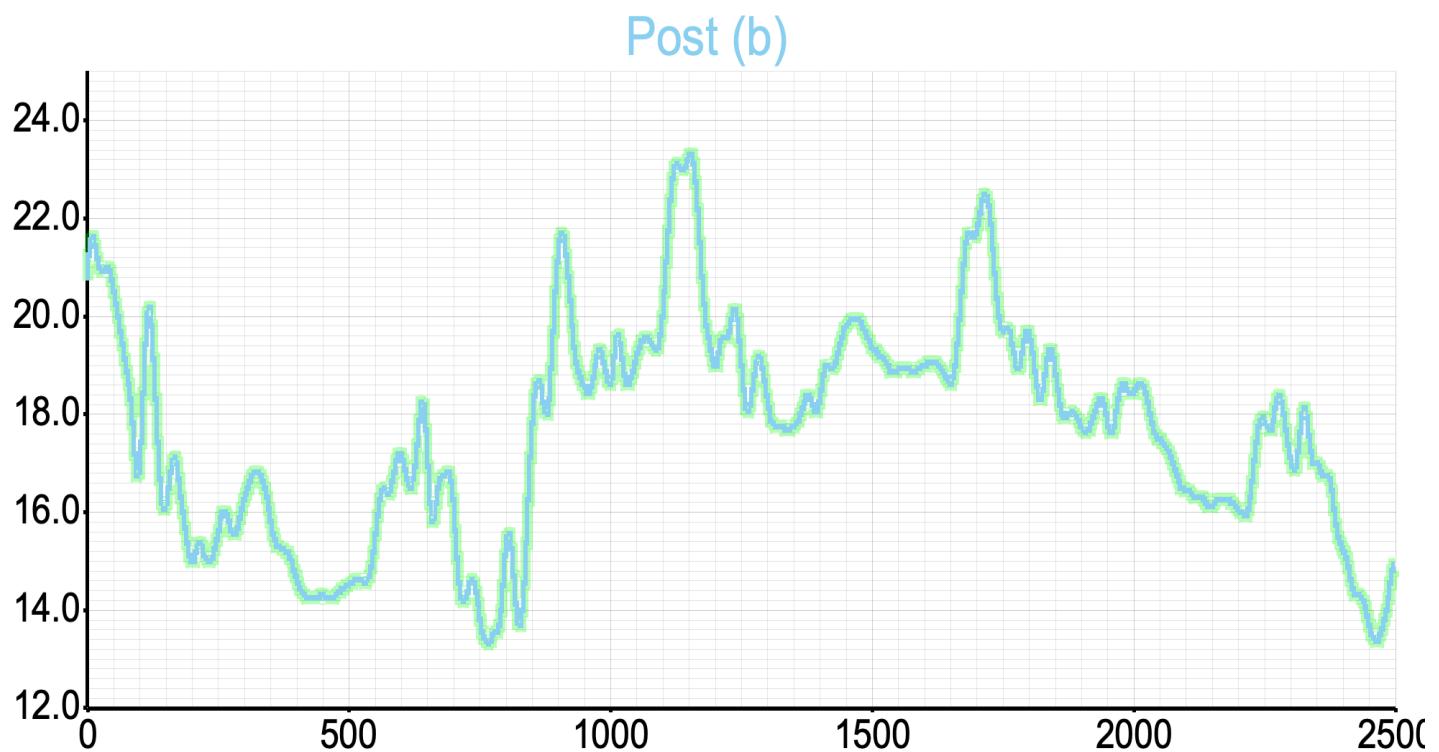
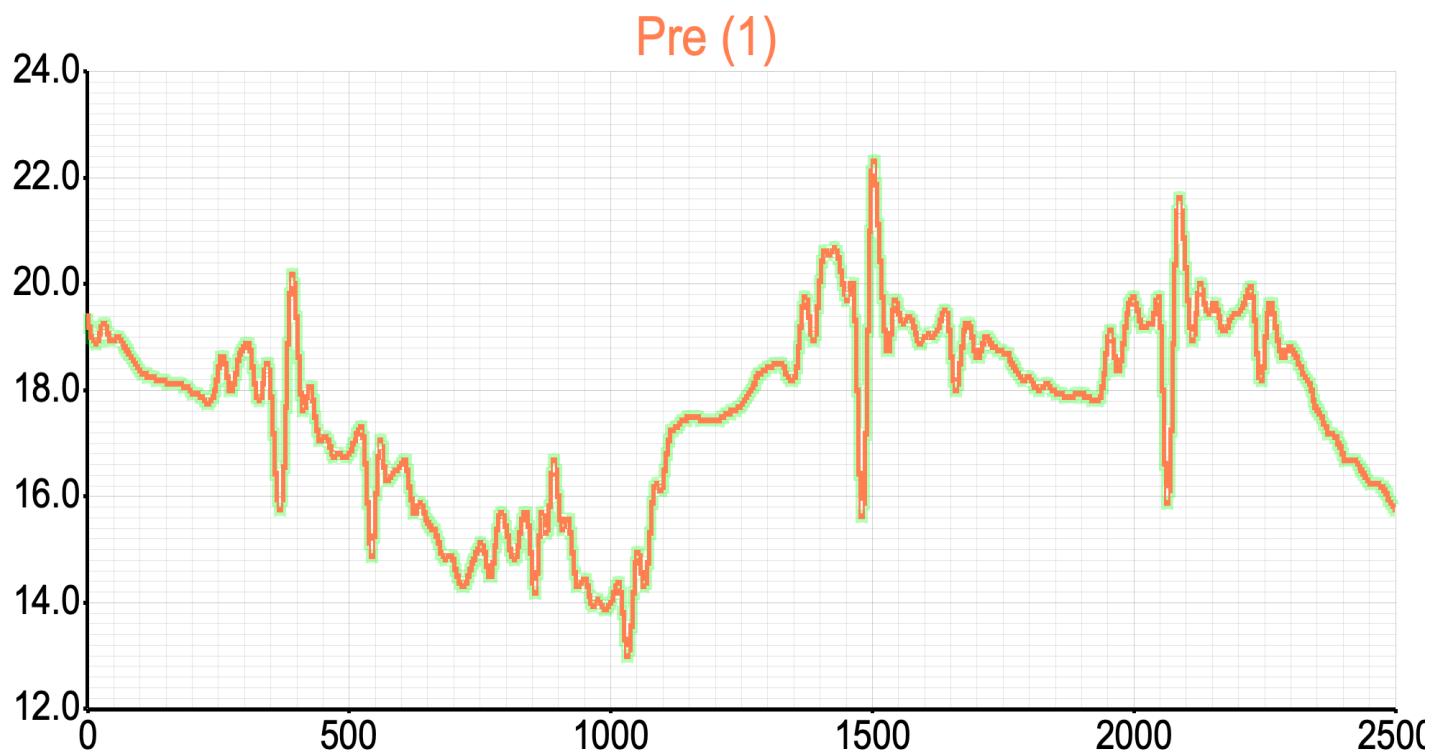
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	11.4	11.4	-	-
Cardiac Amp	52.7	52.7	-	-
High Freq Power	21393966.2	21393966.2	-	-

Patient Patient 17 - RJ - Sample 1



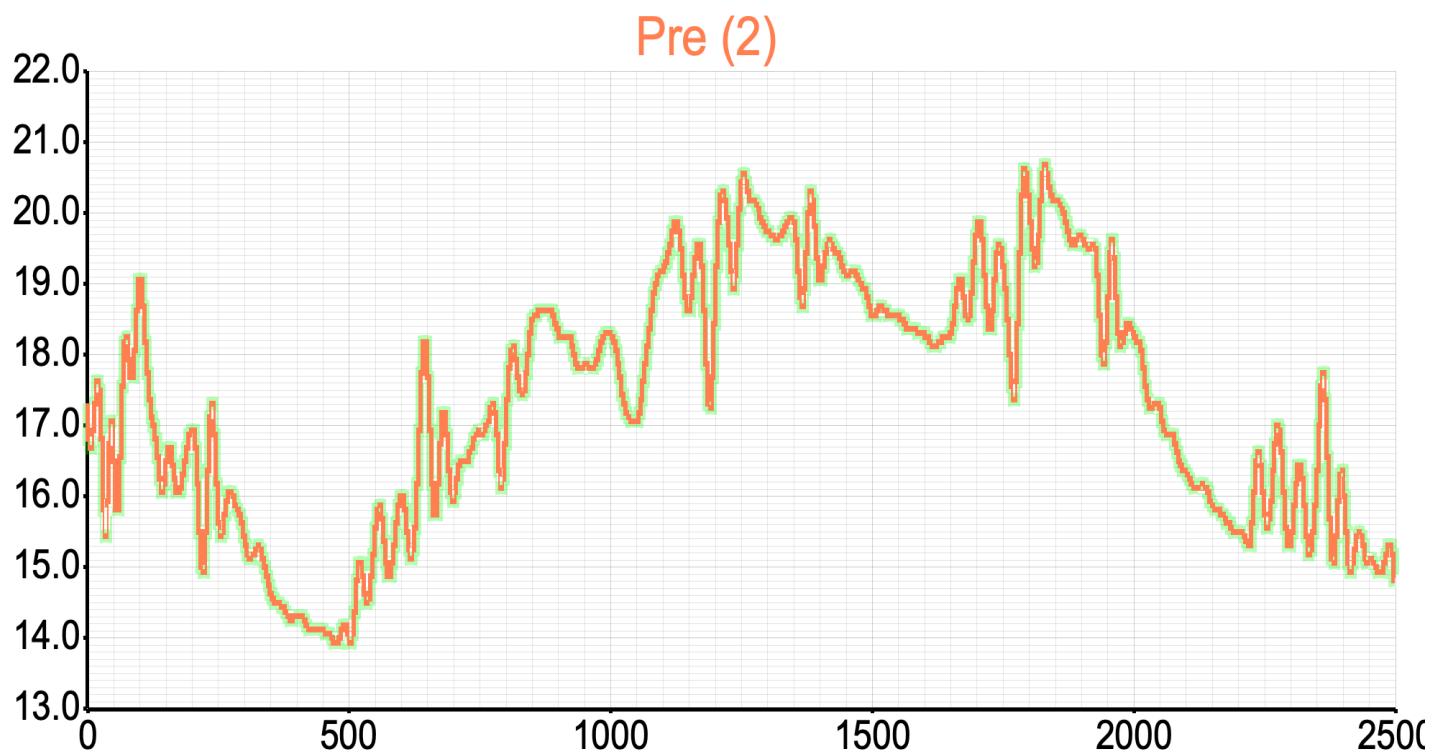
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	14.0	14.0	-	-
Cardiac Amp	2.6	2.6	-	-
High Freq Power	97177.7	97177.7	-	-

Patient Patient 18 - LJ - Sample 1



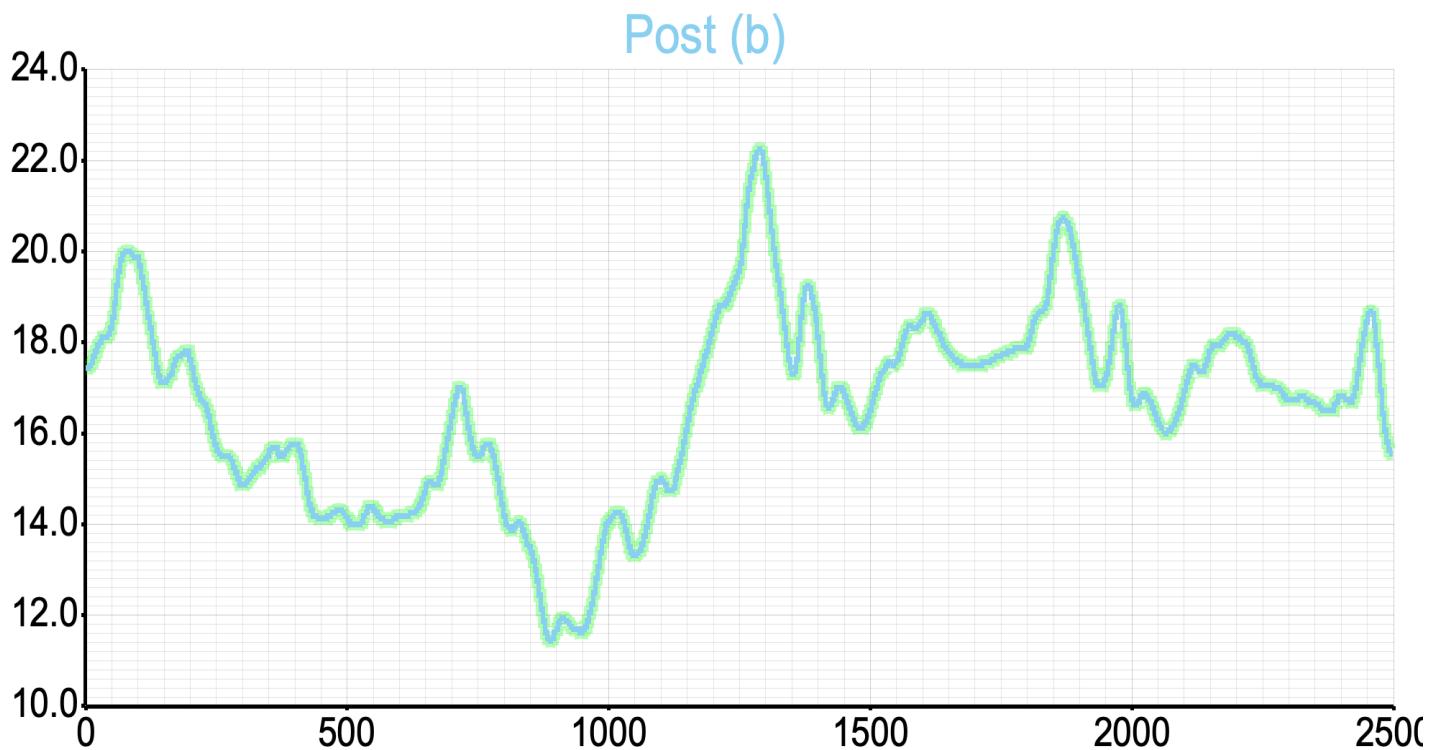
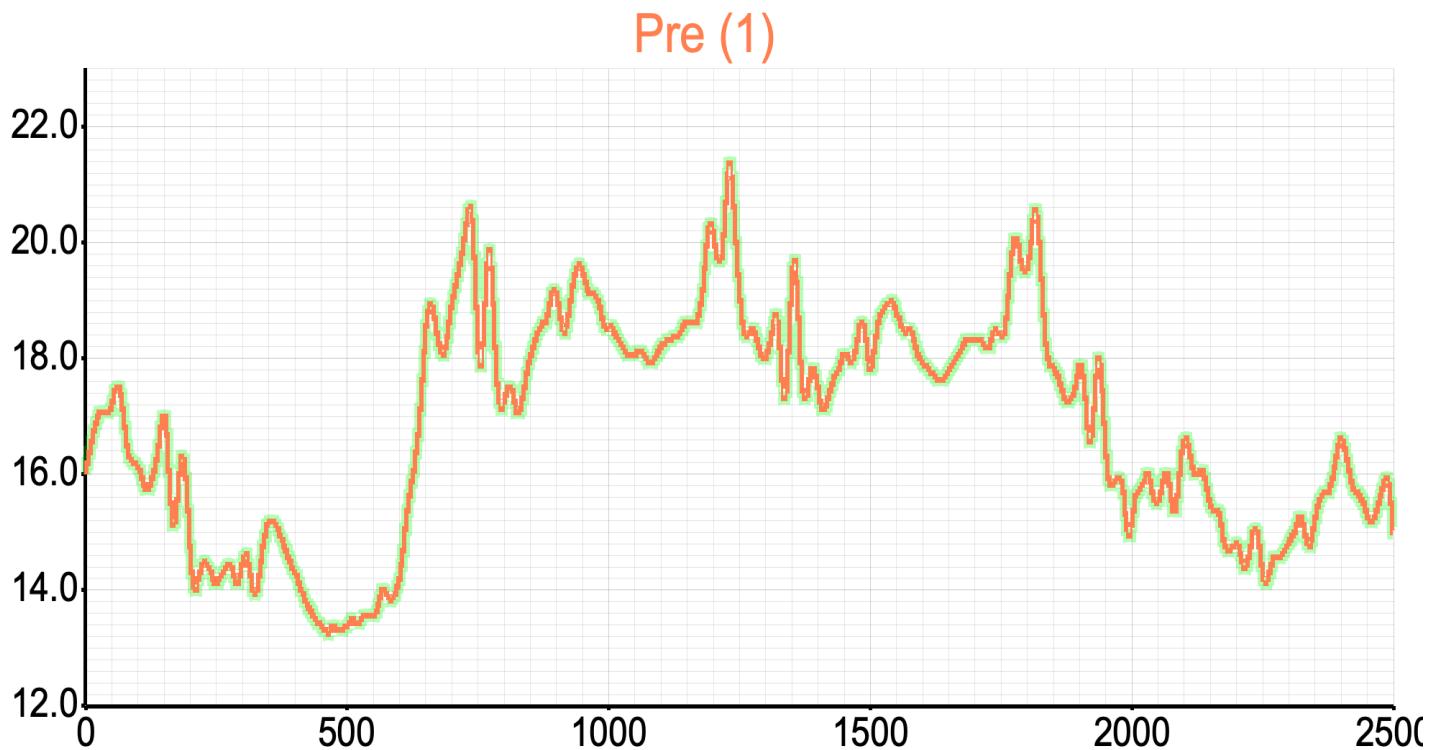
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	17.6	17.6	17.7	17.7
Cardiac Amp	5.2	5.2	5.6	5.6
High Freq Power	551287.5	551287.5	316205.7	316205.7

Patient Patient 18 - LJ - Sample 2



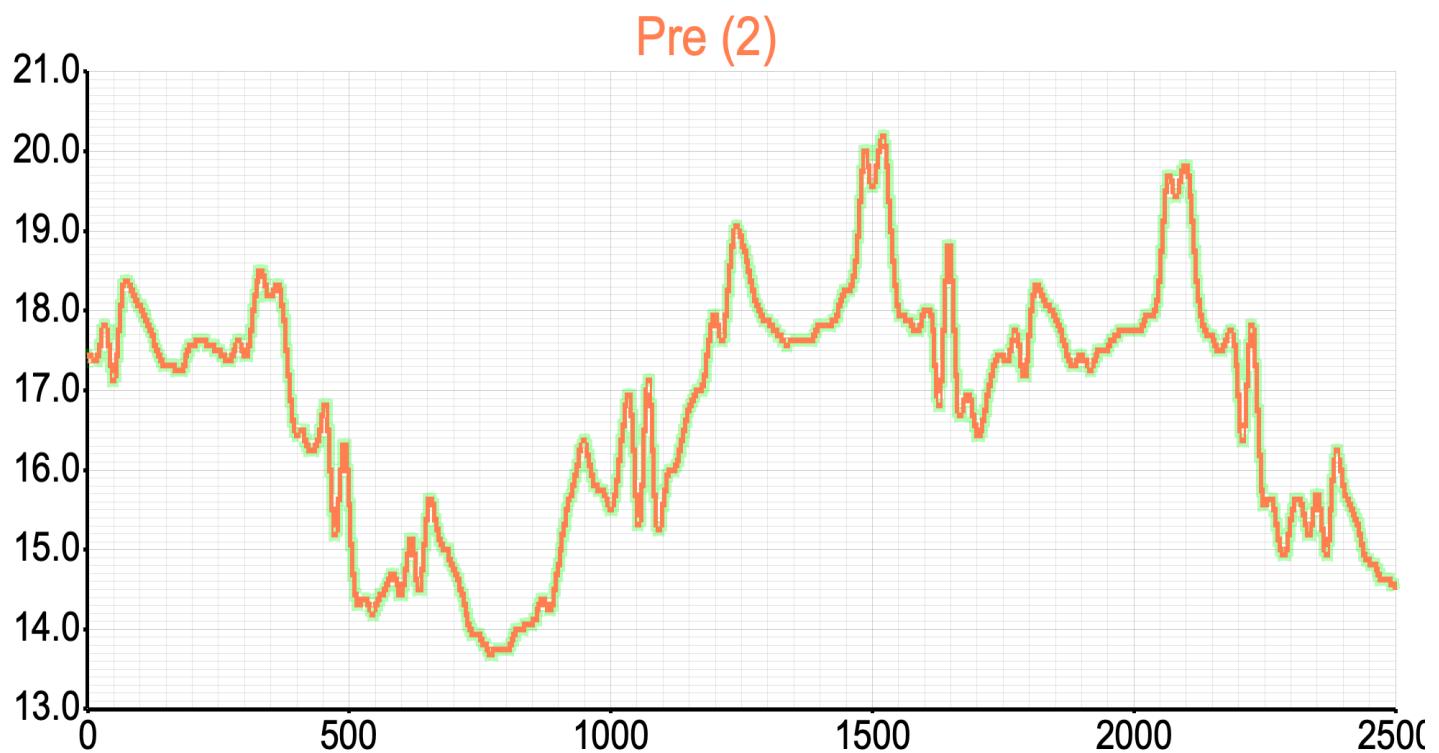
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	17.4	17.4	-	-
Cardiac Amp	2.7	2.7	-	-
High Freq Power	434286.9	434286.9	-	-

Patient Patient 18 - RJ - Sample 1



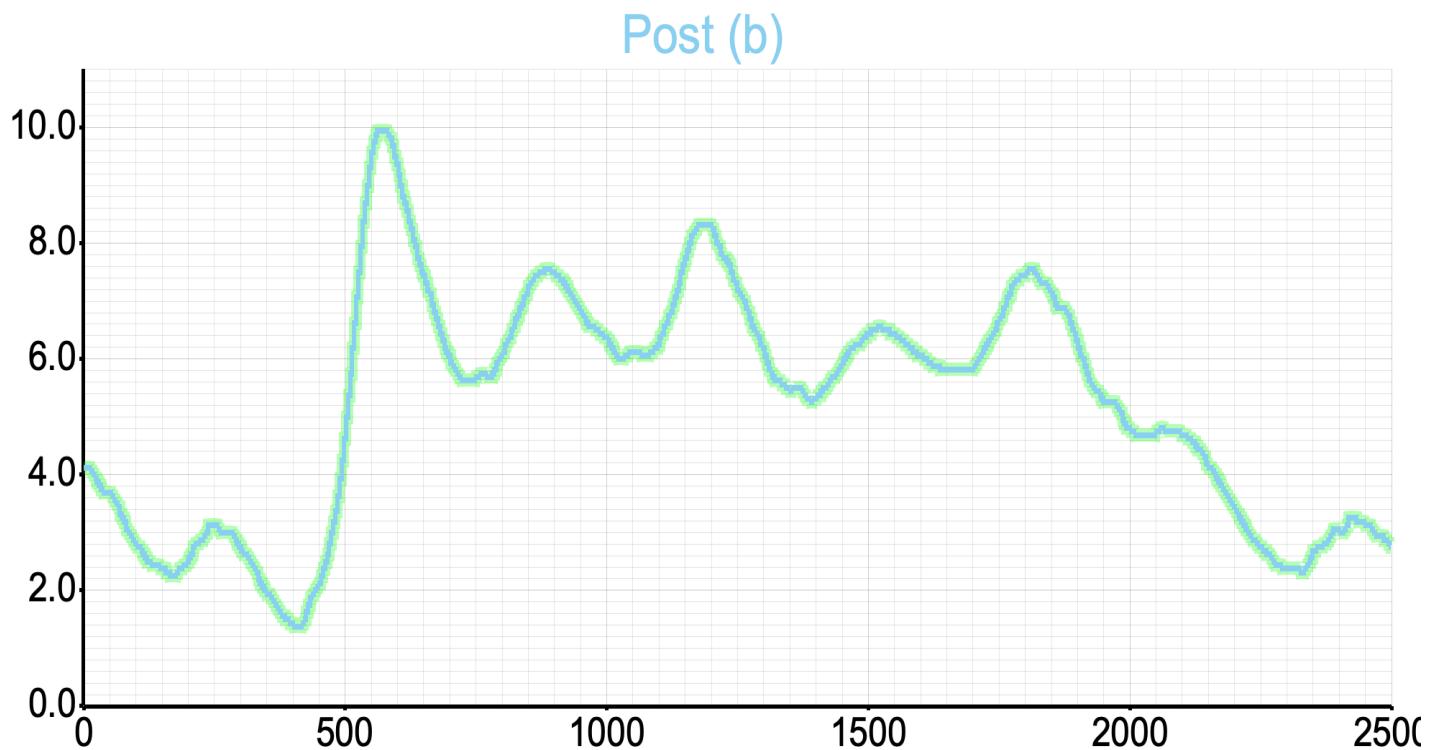
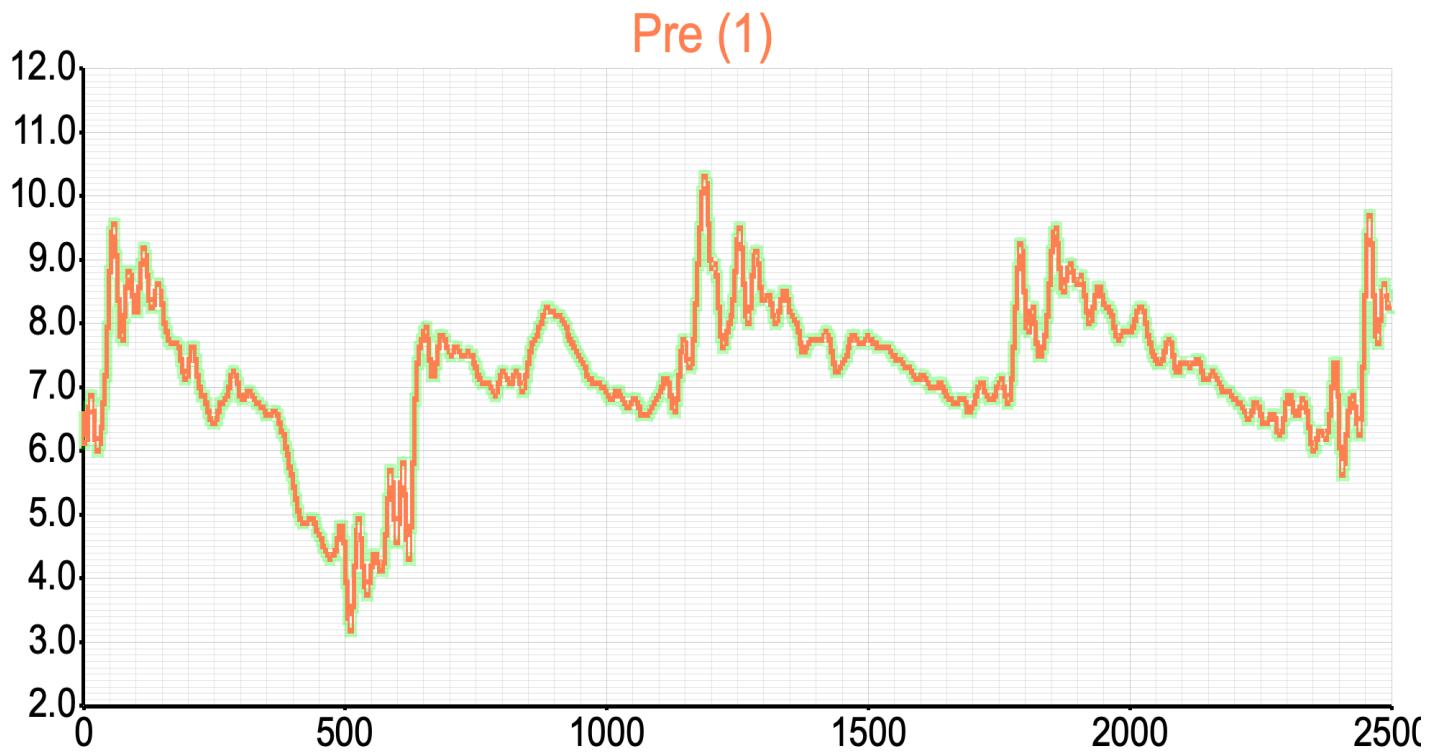
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	16.9	16.9	16.6	16.6
Cardiac Amp	3.7	3.7	6.5	6.5
High Freq Power	221166.9	221166.9	34232.1	34232.1

Patient Patient 18 - RJ - Sample 2



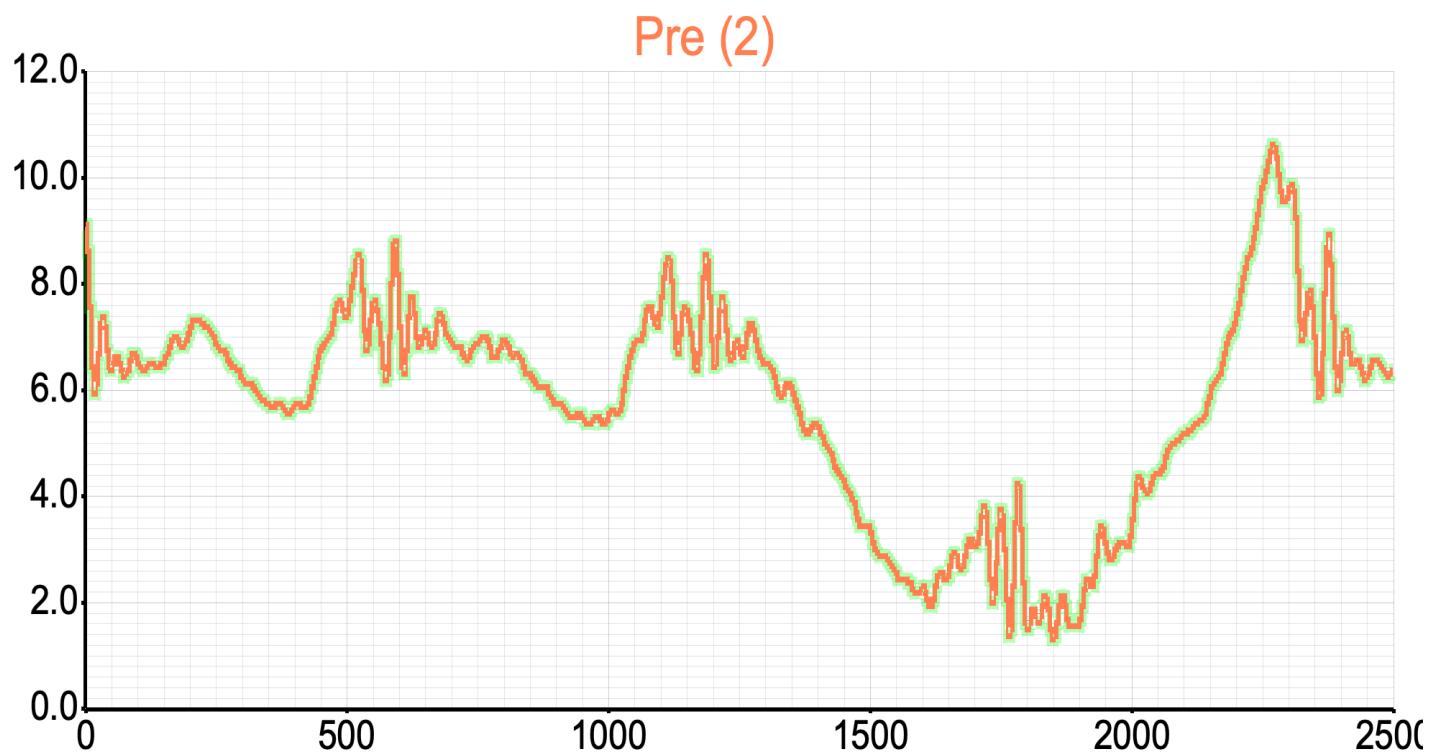
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	16.8	16.8	-	-
Cardiac Amp	3.0	3.0	-	-
High Freq Power	161191.9	161191.9	-	-

Patient Patient 19 - LJ - Sample 1



Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	7.2	7.2	5.2	5.2
Cardiac Amp	5.1	5.1	4.1	4.1
High Freq Power	203300.3	203300.3	10559.7	10559.7

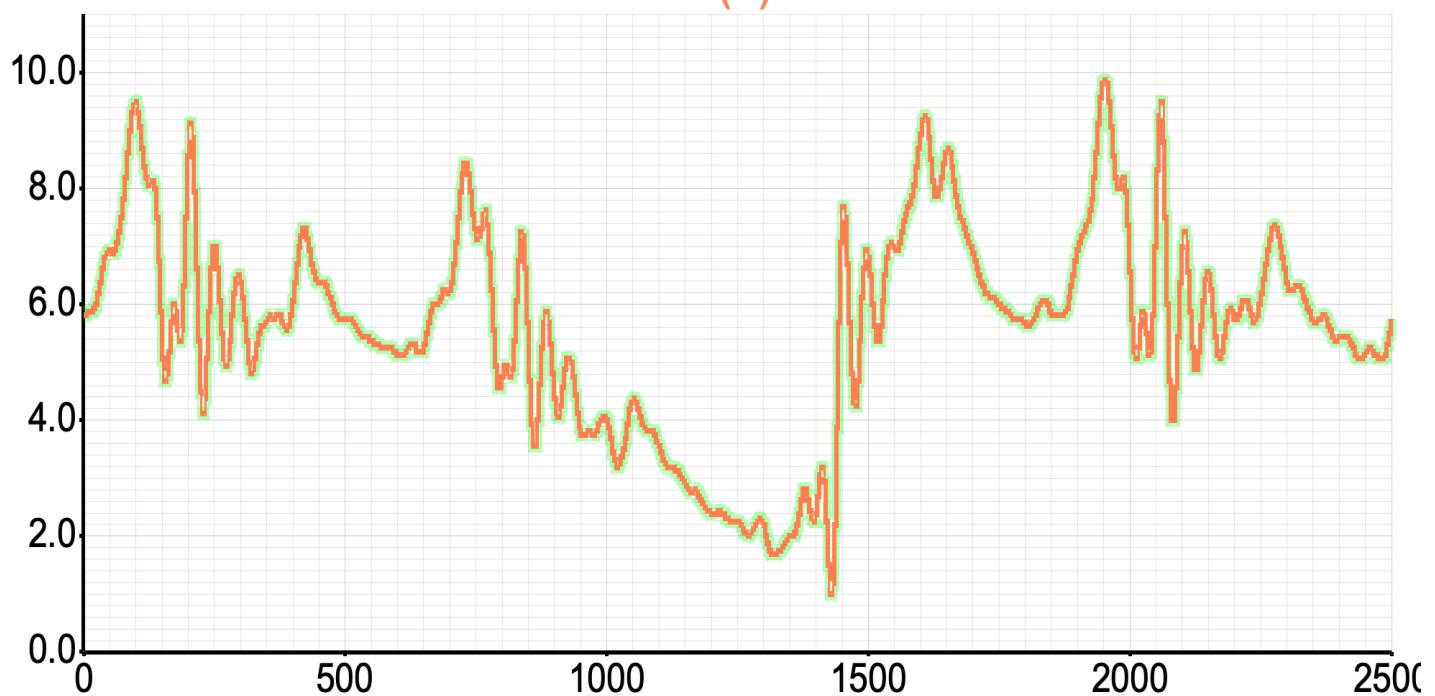
Patient Patient 19 - LJ - Sample 2



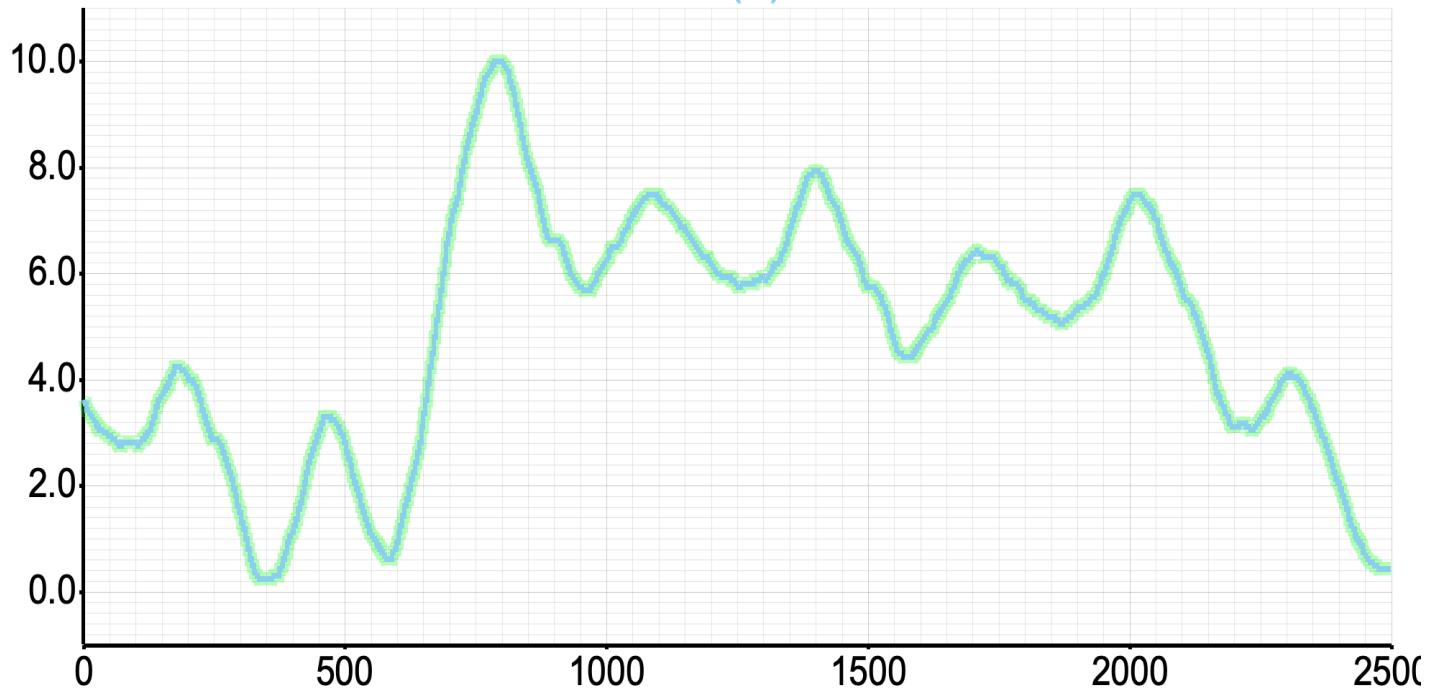
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	5.8	5.8	-	-
Cardiac Amp	5.0	5.0	-	-
High Freq Power	368095.0	368095.0	-	-

Patient Patient 19 - RJ - Sample 1

Pre (1)

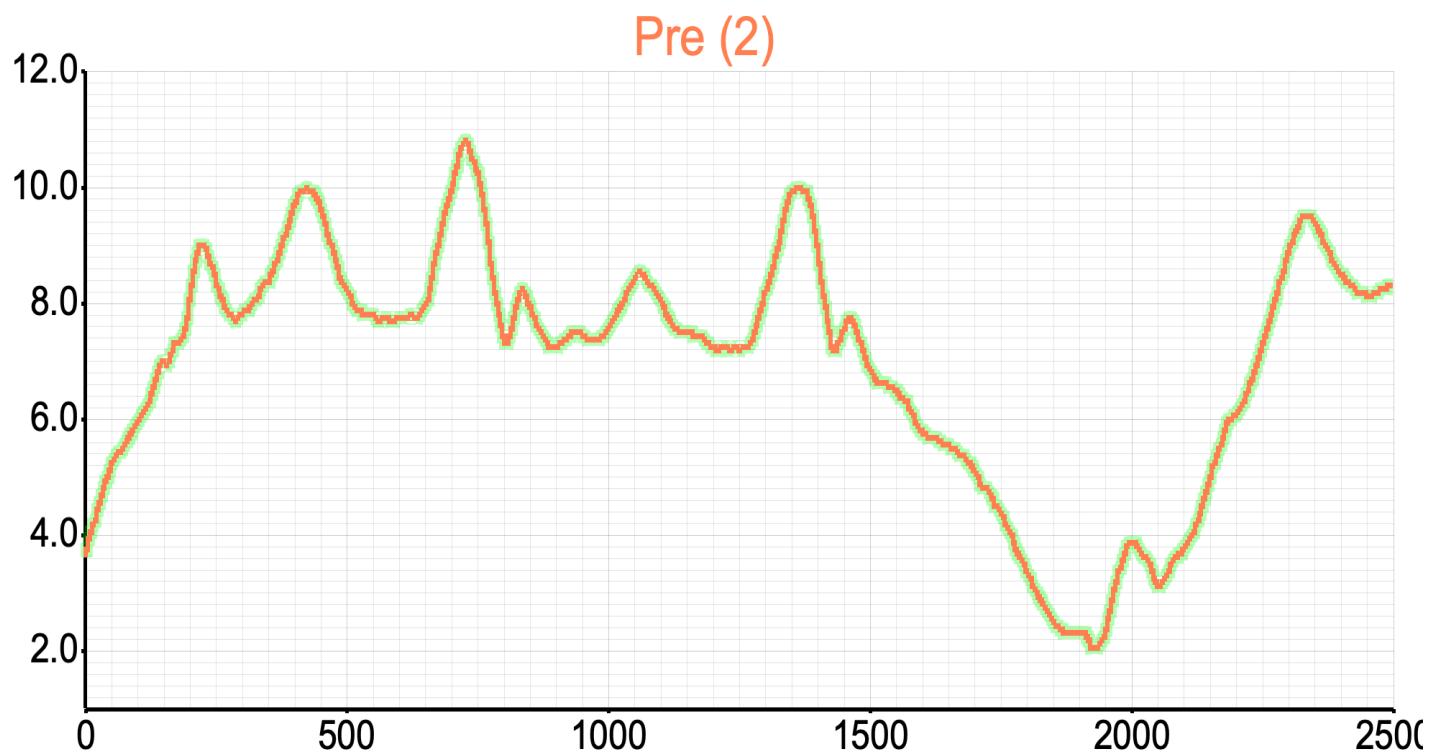


Post (b)



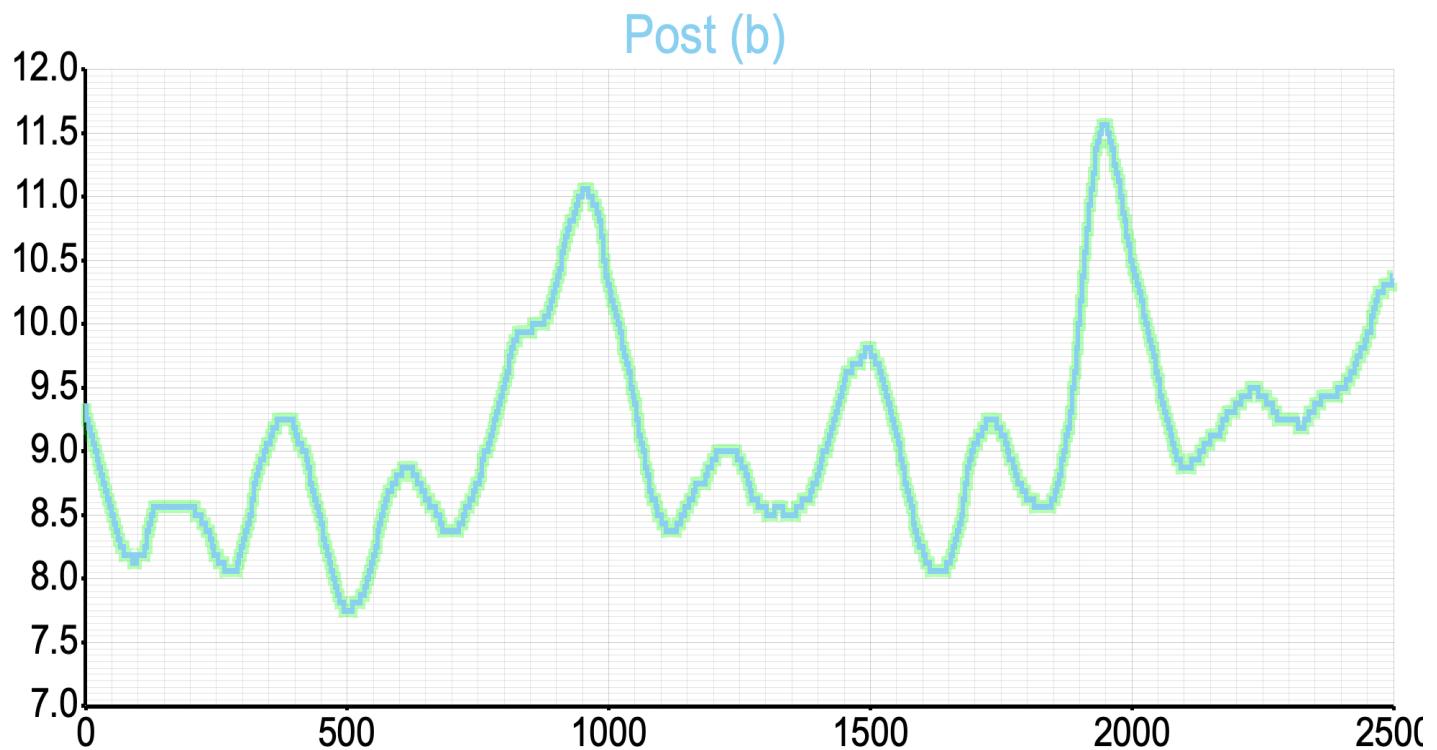
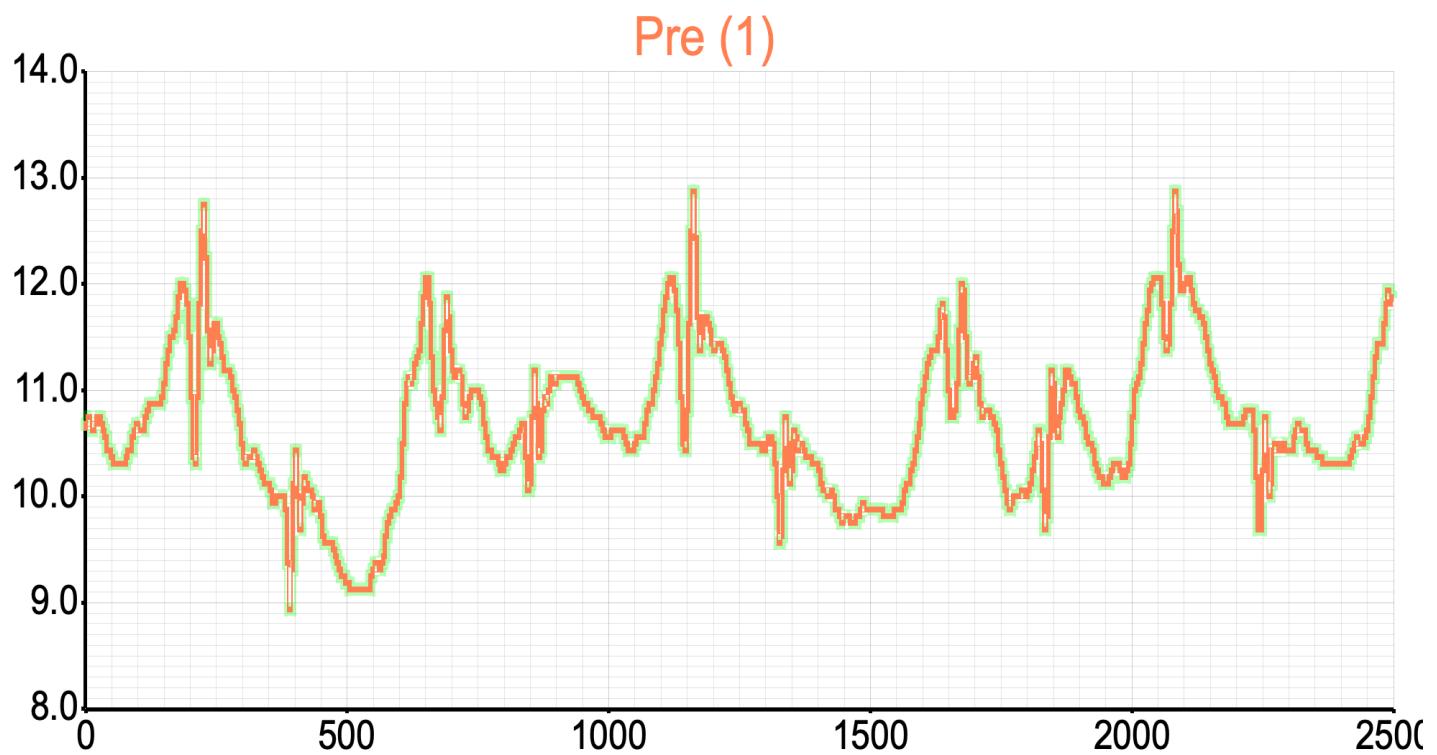
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	5.6	5.6	4.8	4.8
Cardiac Amp	4.7	4.7	4.5	4.5
High Freq Power	539526.6	539526.6	37913.2	37913.2

Patient Patient 19 - RJ - Sample 2



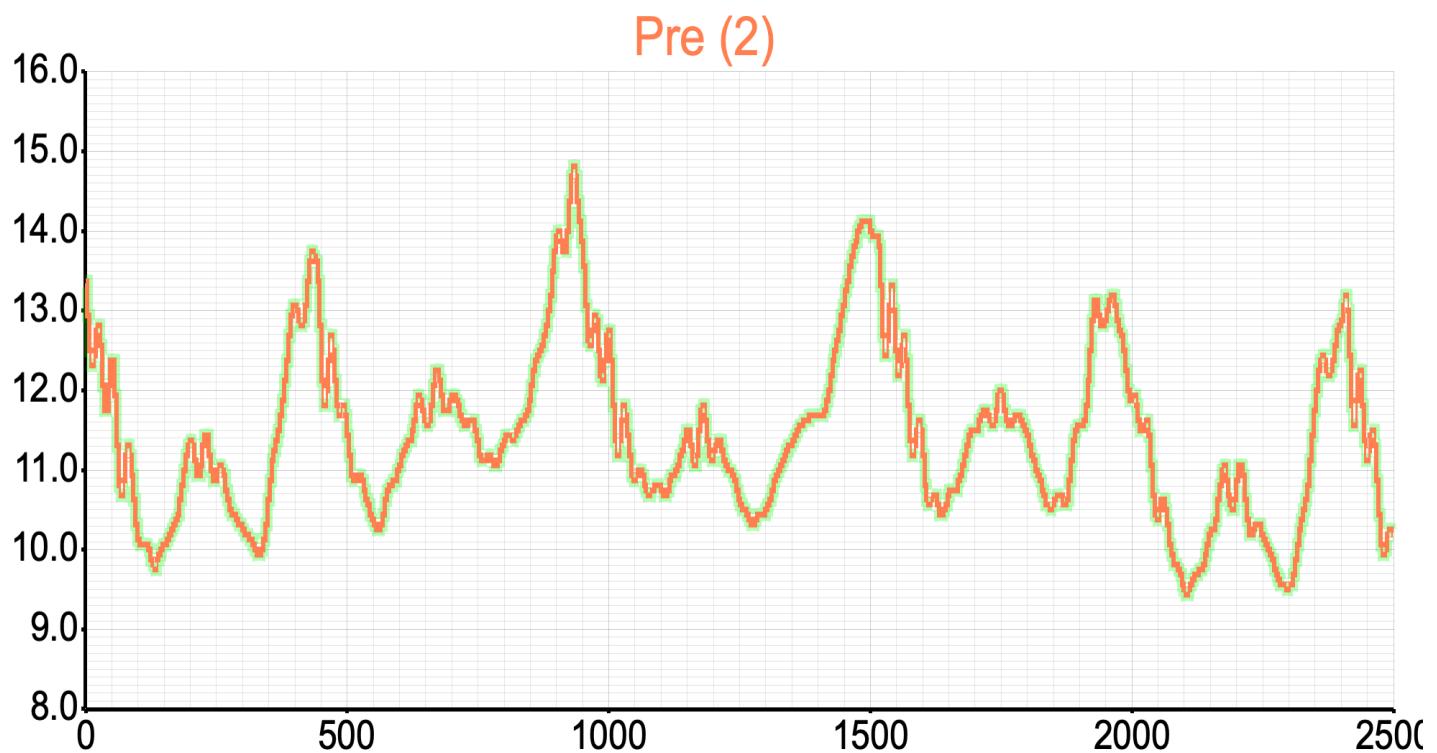
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	7.0	7.0	-	-
Cardiac Amp	3.6	3.6	-	-
High Freq Power	72740.1	72740.1	-	-

Patient Patient 20 - LJ - Sample 1



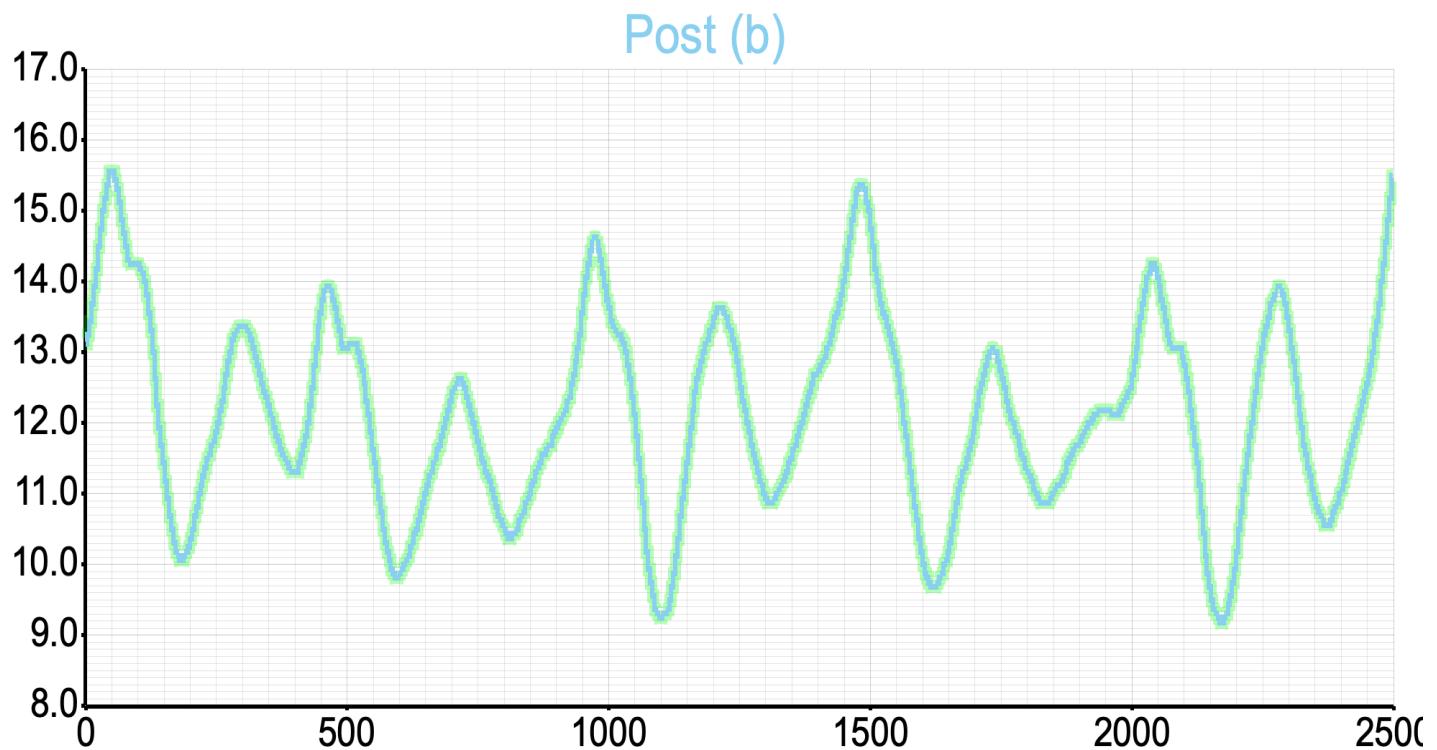
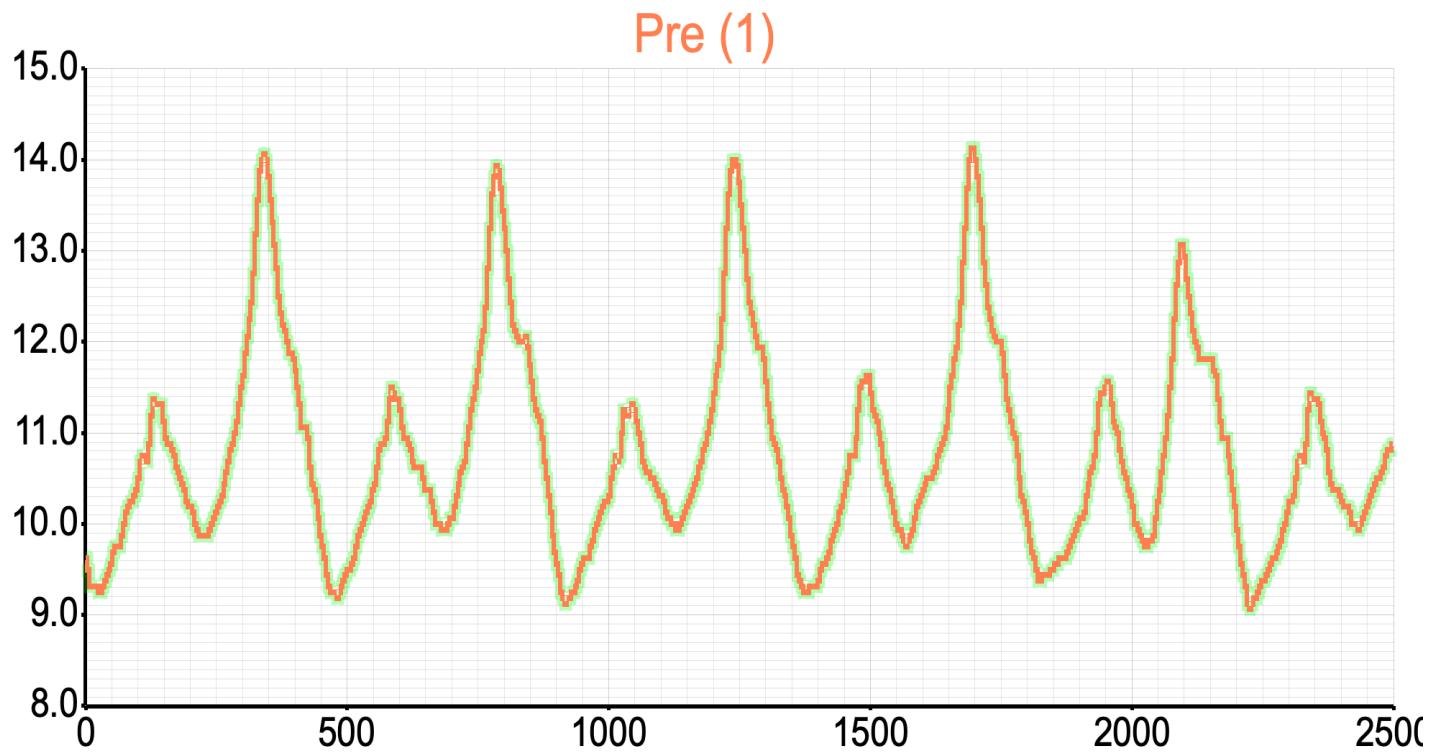
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	10.7	10.7	9.1	9.1
Cardiac Amp	3.2	3.2	2.6	2.6
High Freq Power	133334.4	133334.4	5336.4	5336.4

Patient Patient 20 - LJ - Sample 2



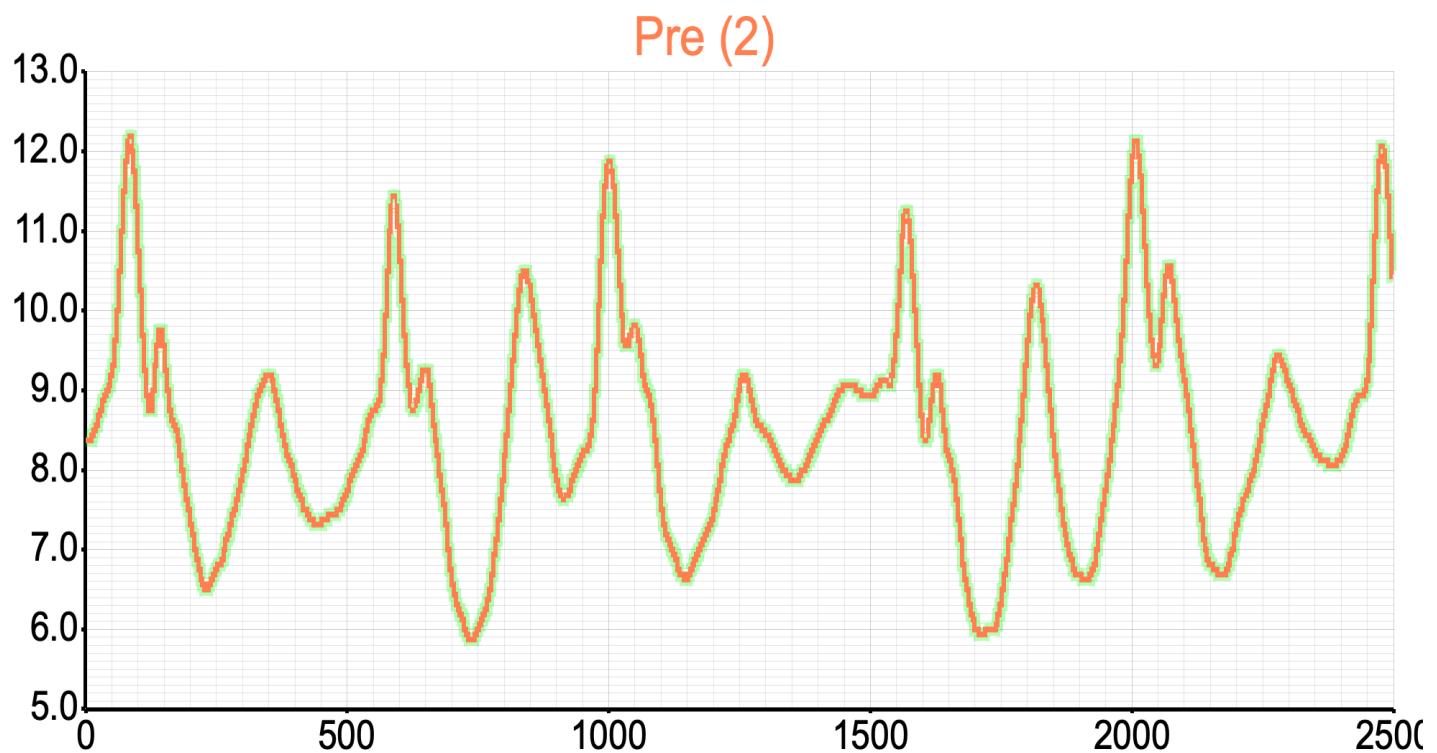
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	11.4	11.4	-	-
Cardiac Amp	4.2	4.2	-	-
High Freq Power	138261.1	138261.1	-	-

Patient Patient 20 - RJ - Sample 1



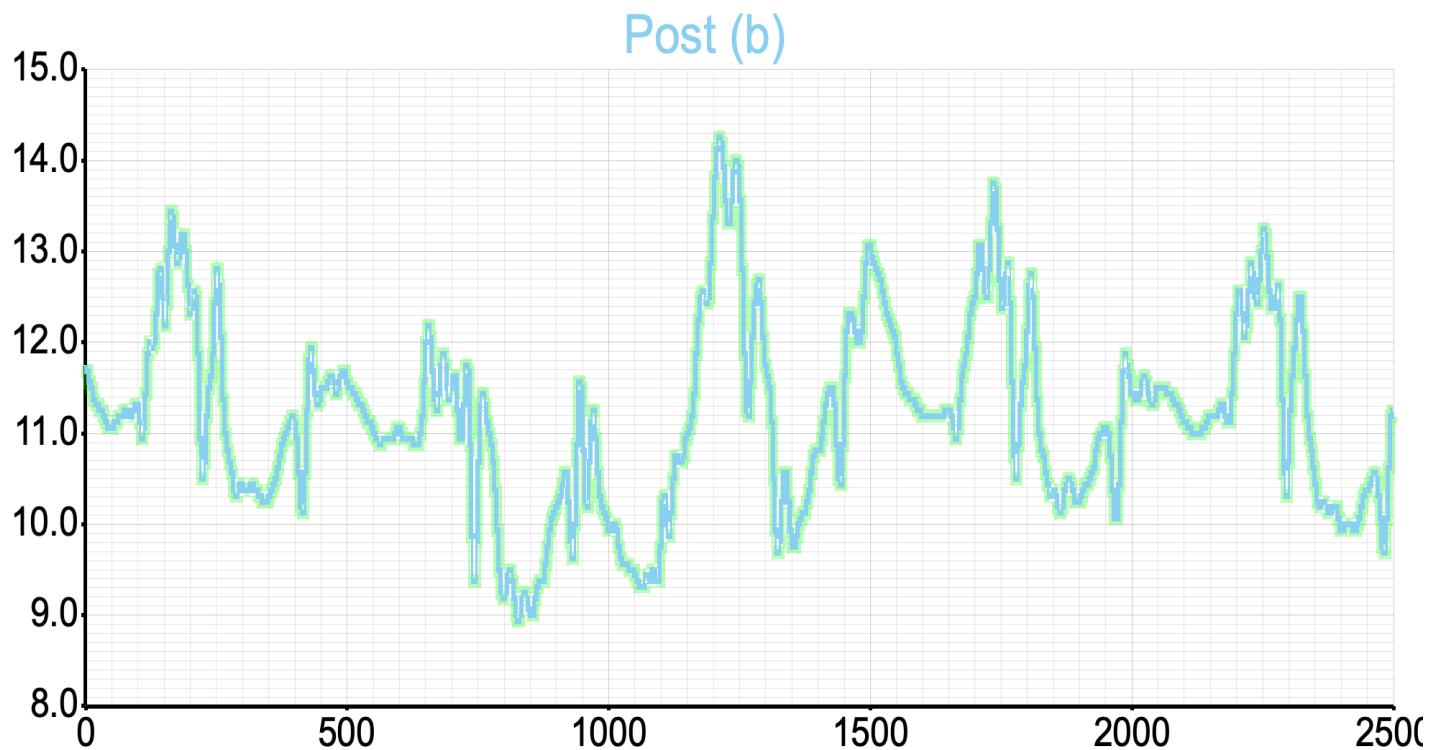
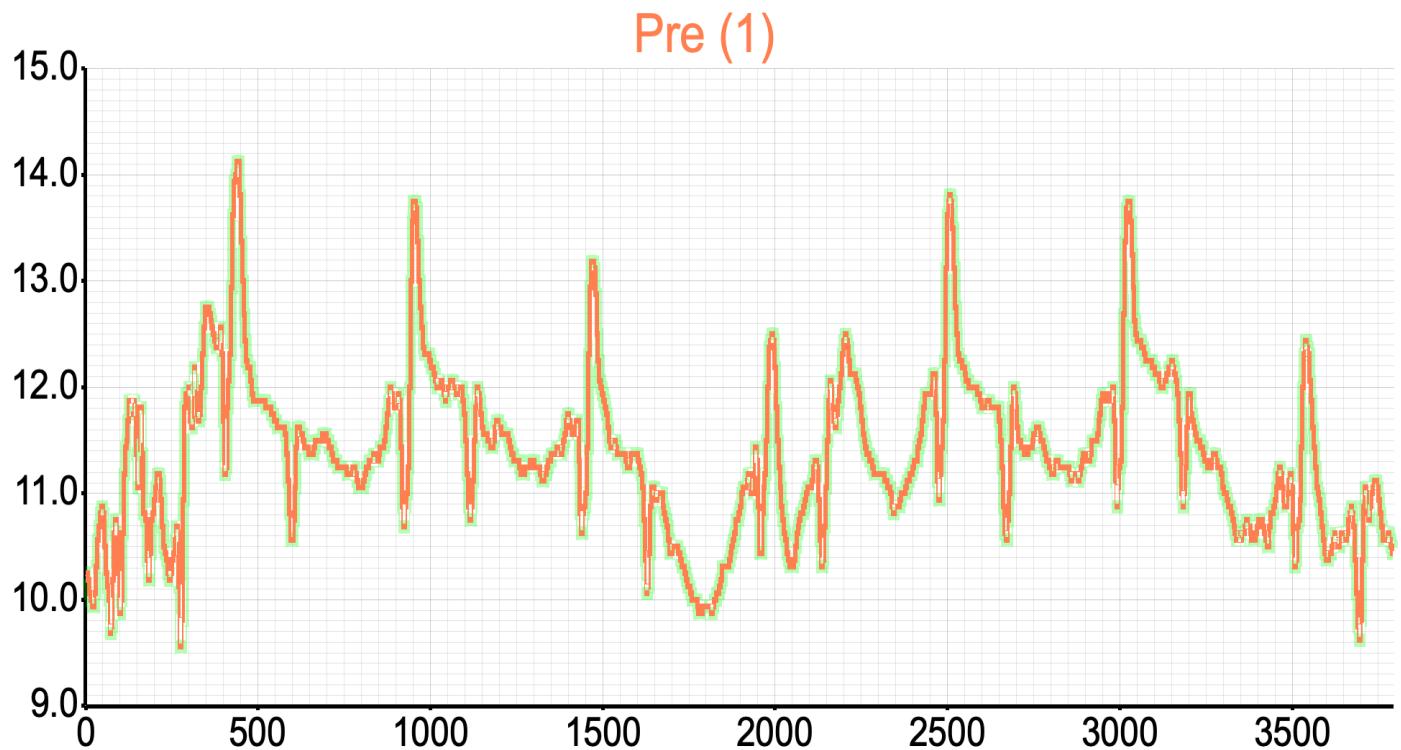
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	10.8	10.8	12.1	12.1
Cardiac Amp	4.4	4.4	5.3	5.3
High Freq Power	20943.7	20943.7	29149.0	29149.0

Patient Patient 20 - RJ - Sample 2



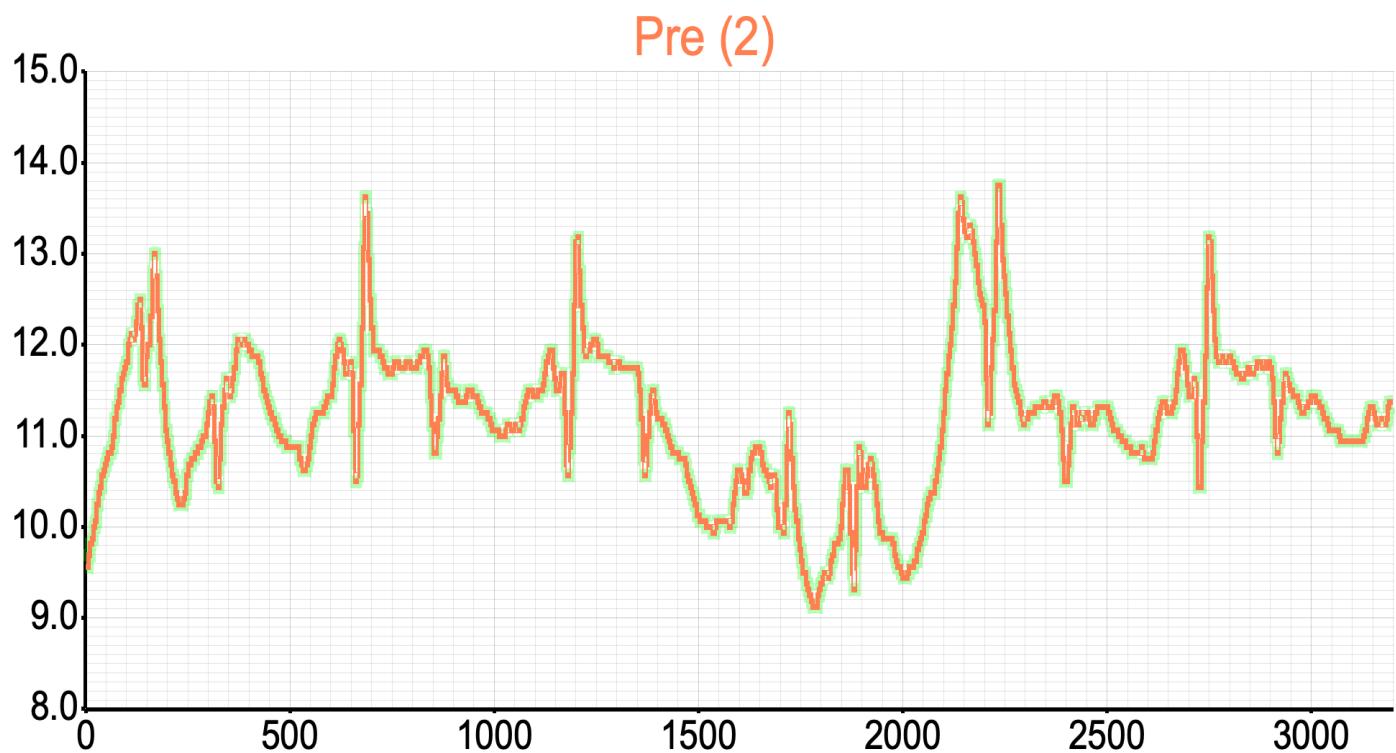
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	8.5	8.5	-	-
Cardiac Amp	5.5	5.5	-	-
High Freq Power	41565.4	41565.4	-	-

Patient Patient 21 - LJ - Sample 1



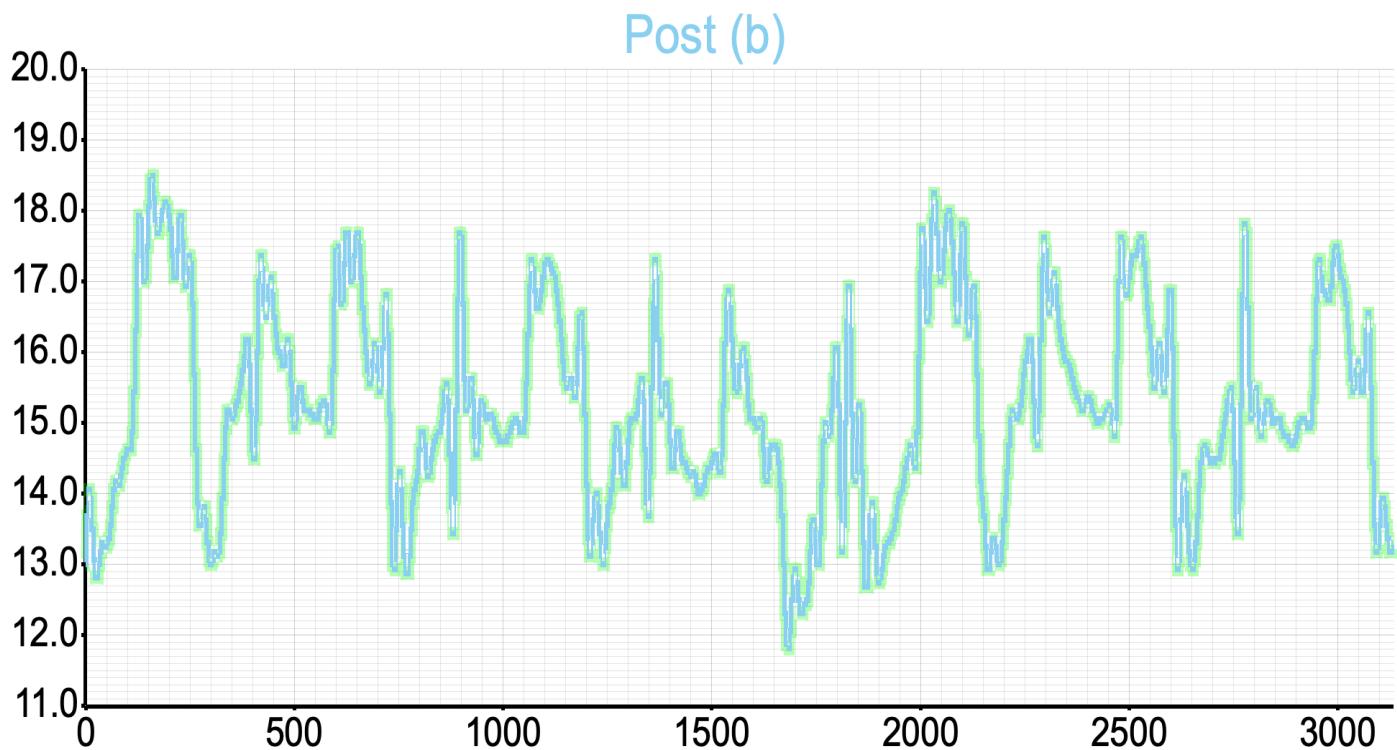
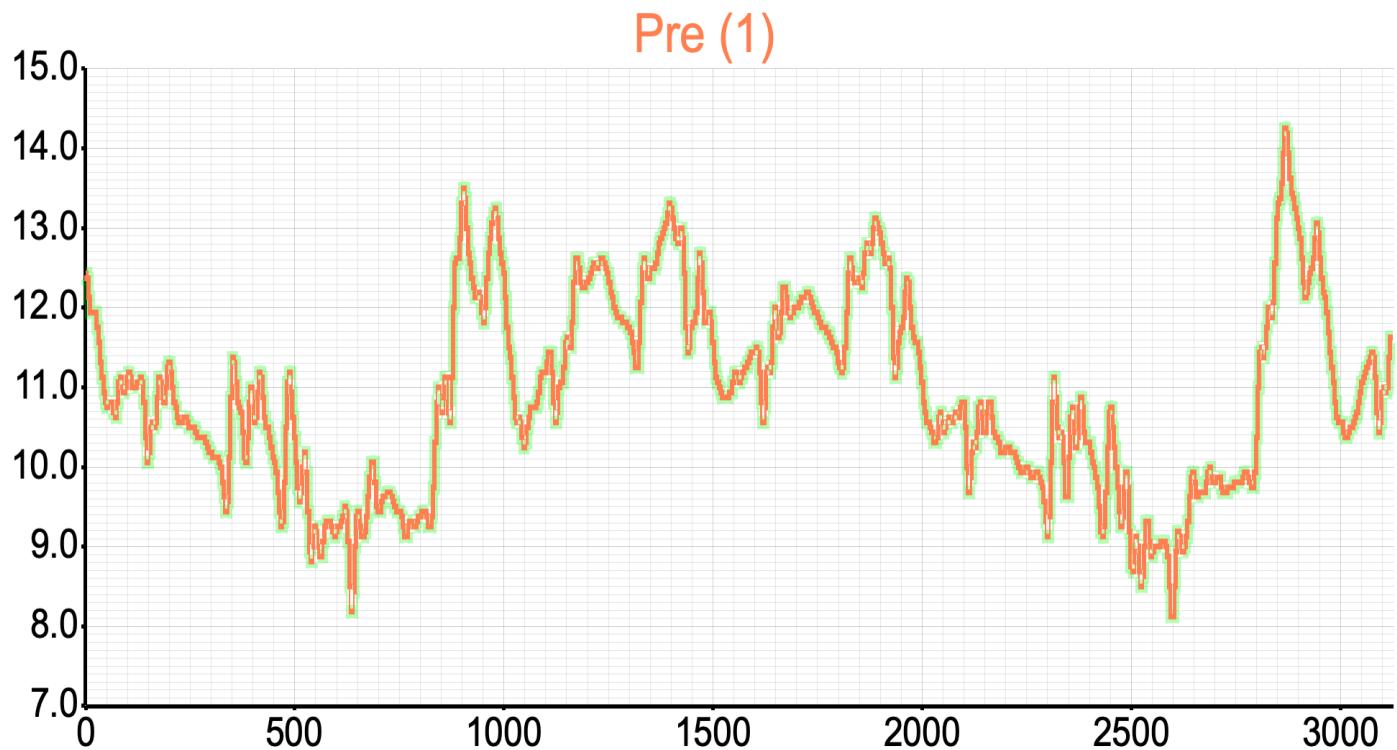
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	11.4	11.4	11.2	11.2
Cardiac Amp	3.4	3.4	3.8	3.8
High Freq Power	267344.6	267344.6	235613.9	235613.9

Patient Patient 21 - LJ - Sample 2



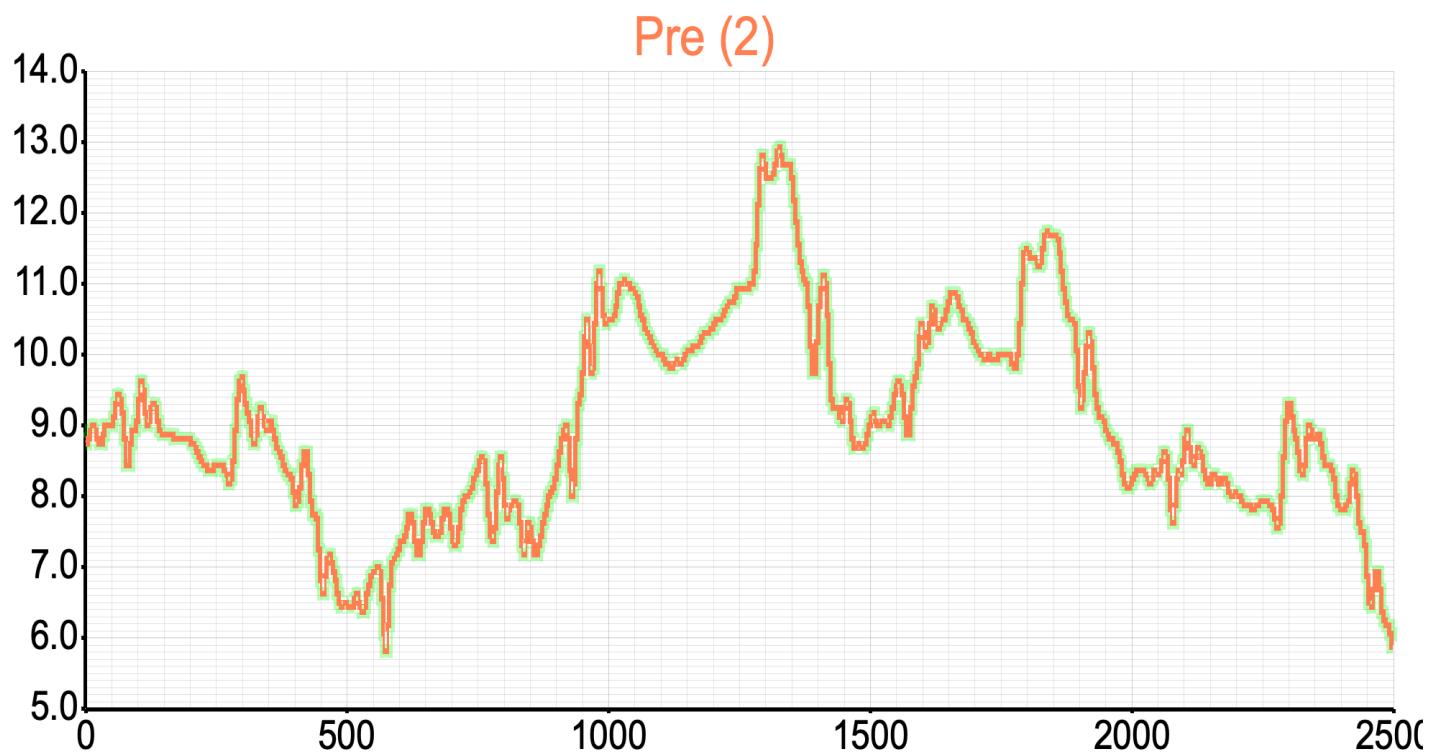
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	11.2	11.2	-	-
Cardiac Amp	3.1	3.1	-	-
High Freq Power	189399.6	189399.6	-	-

Patient Patient 21 - RJ - Sample 1



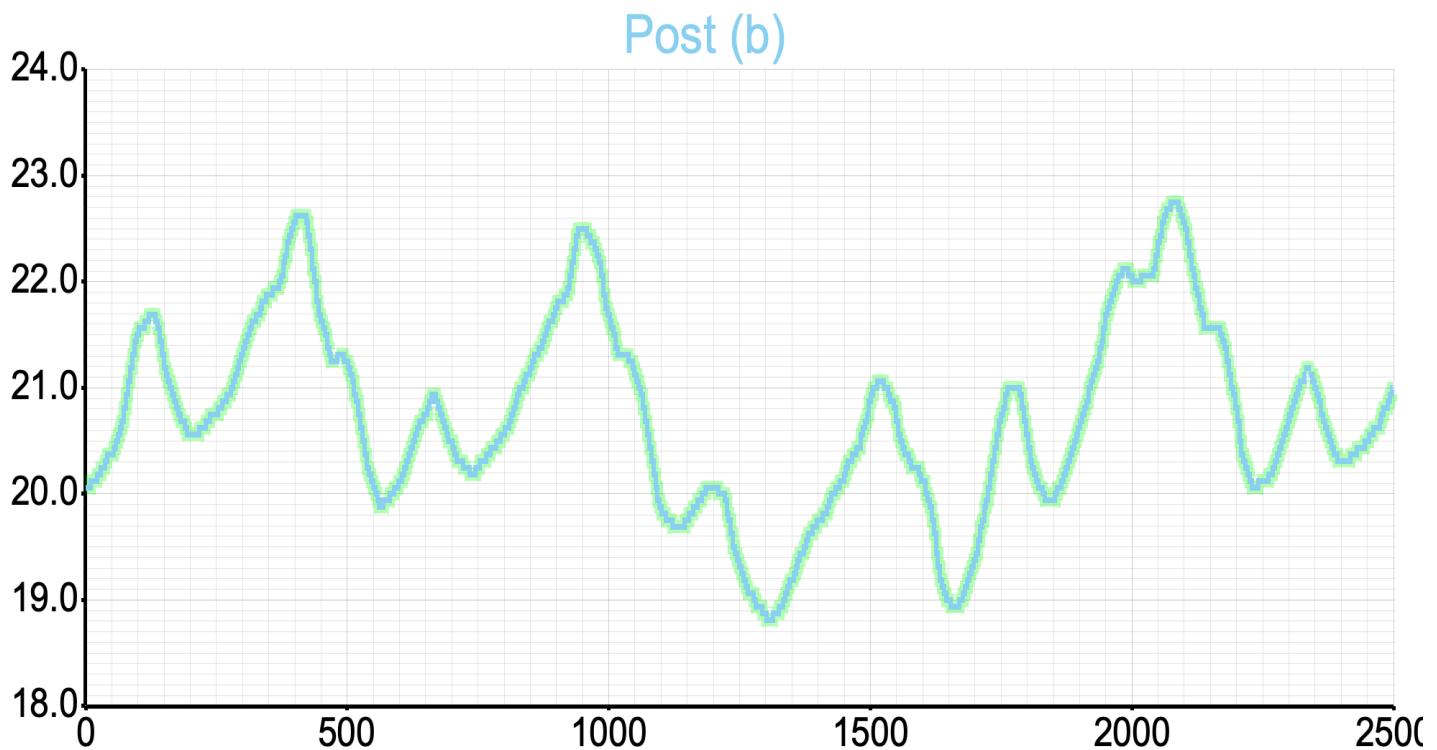
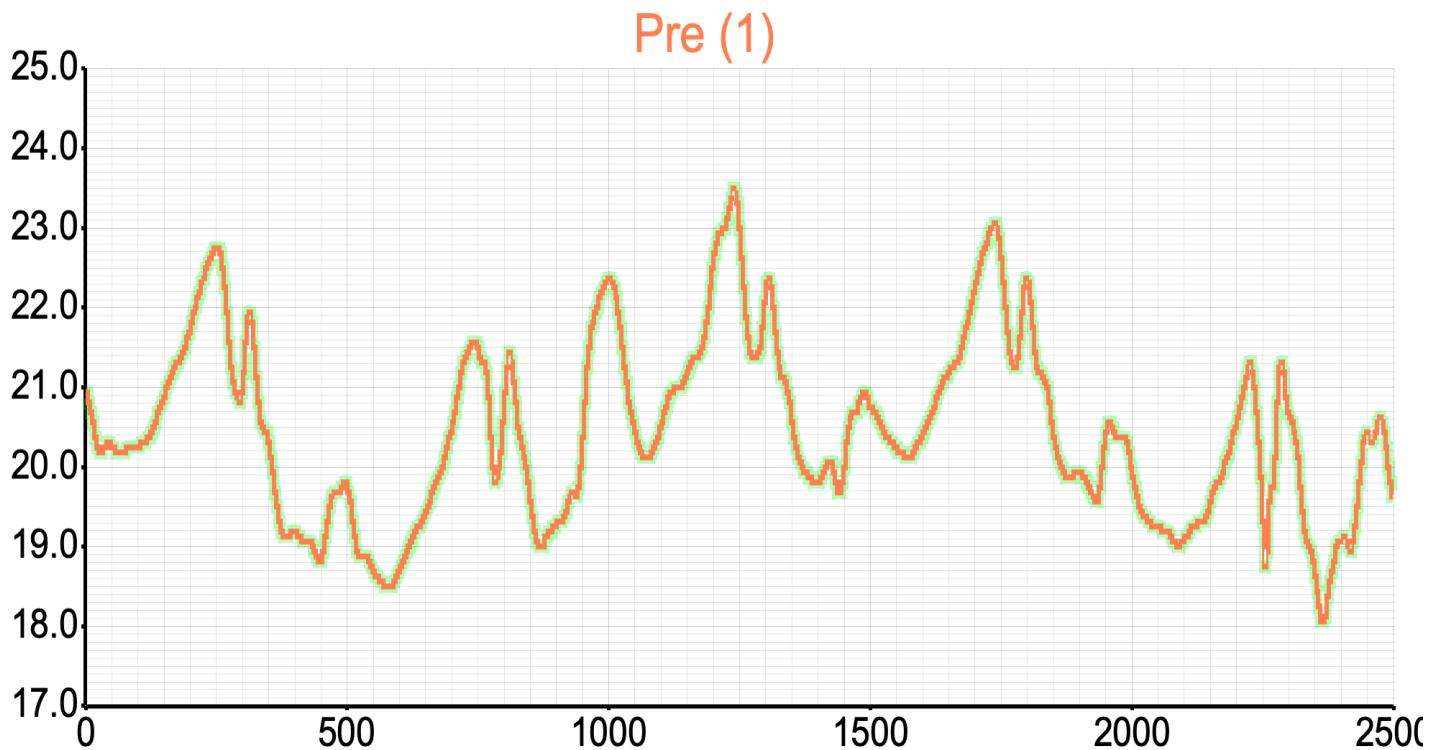
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	10.9	10.9	15.2	15.2
Cardiac Amp	3.8	3.8	5.0	5.0
High Freq Power	211758.7	211758.7	997427.8	997427.8

Patient Patient 21 - RJ - Sample 2



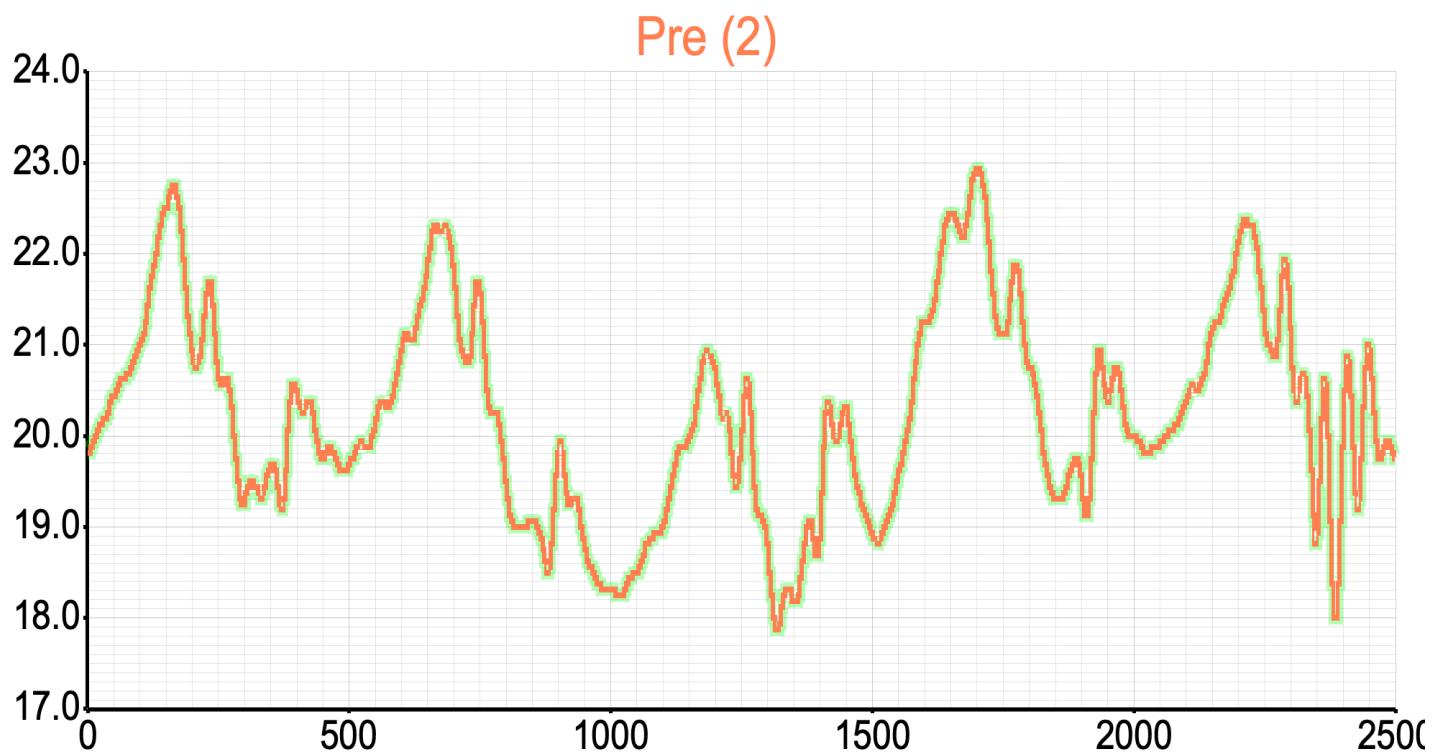
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	9.0	9.0	-	-
Cardiac Amp	3.8	3.8	-	-
High Freq Power	149839.2	149839.2	-	-

Patient Patient 22 - LJ - Sample 1



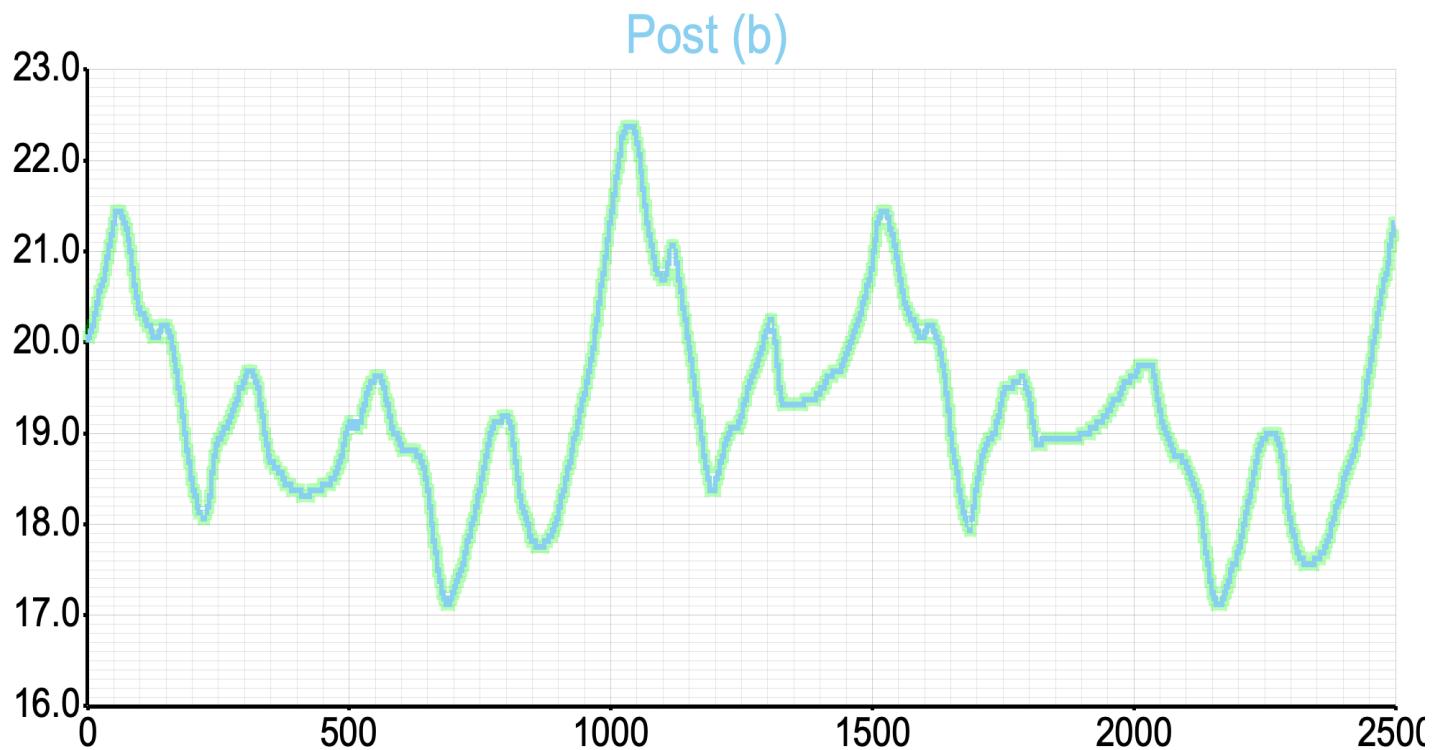
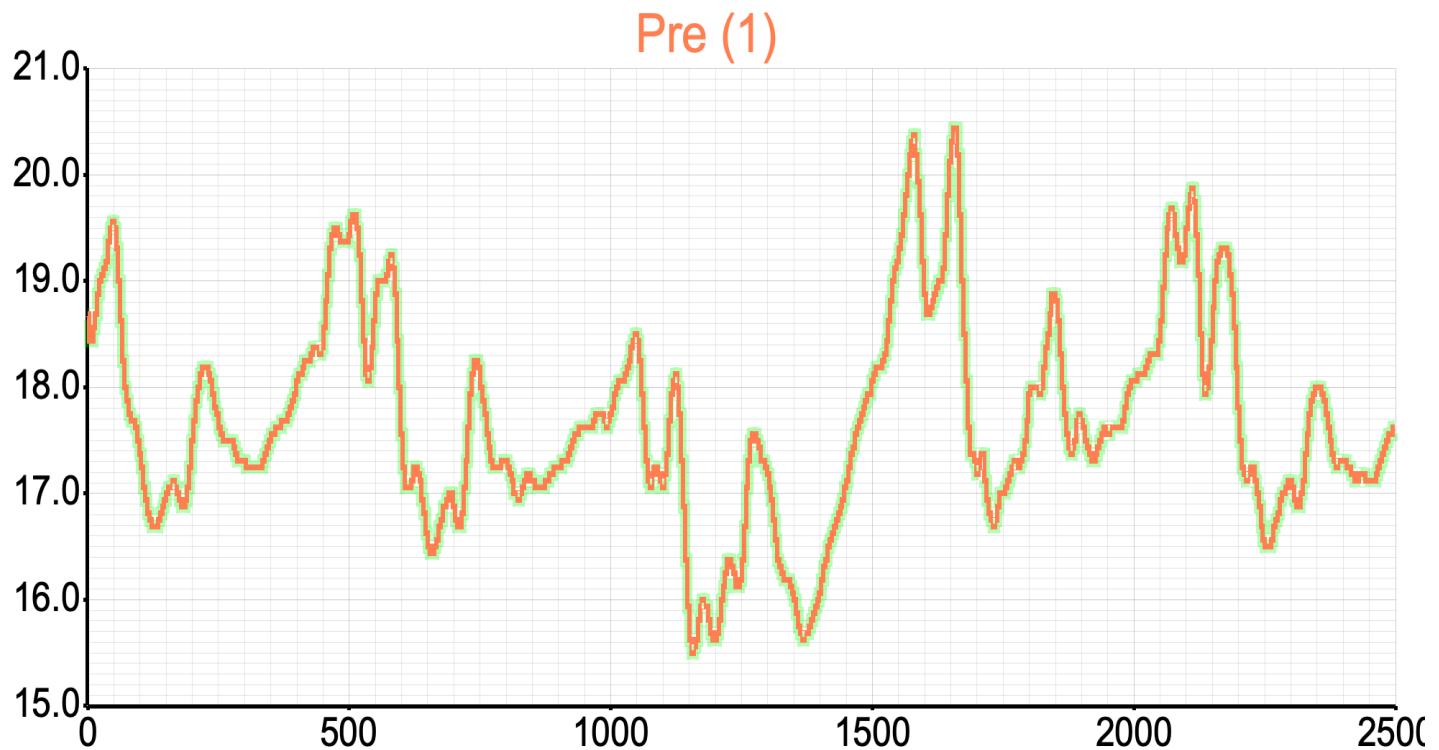
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	20.4	20.4	20.7	20.7
Cardiac Amp	3.9	3.9	2.4	2.4
High Freq Power	50056.5	50056.5	5784.8	5784.8

Patient Patient 22 - LJ - Sample 2



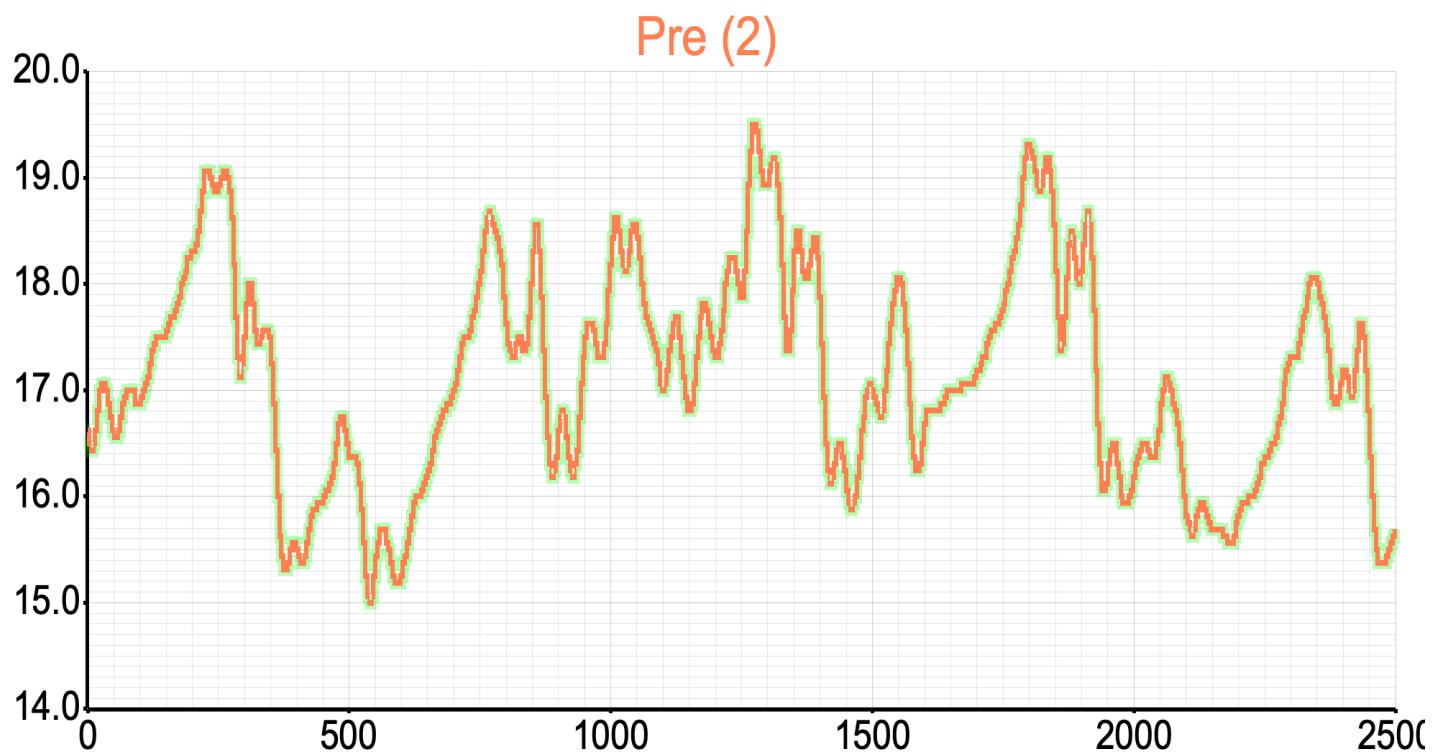
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	20.2	20.2	-	-
Cardiac Amp	3.4	3.4	-	-
High Freq Power	152627.5	152627.5	-	-

Patient Patient 22 - RJ - Sample 1



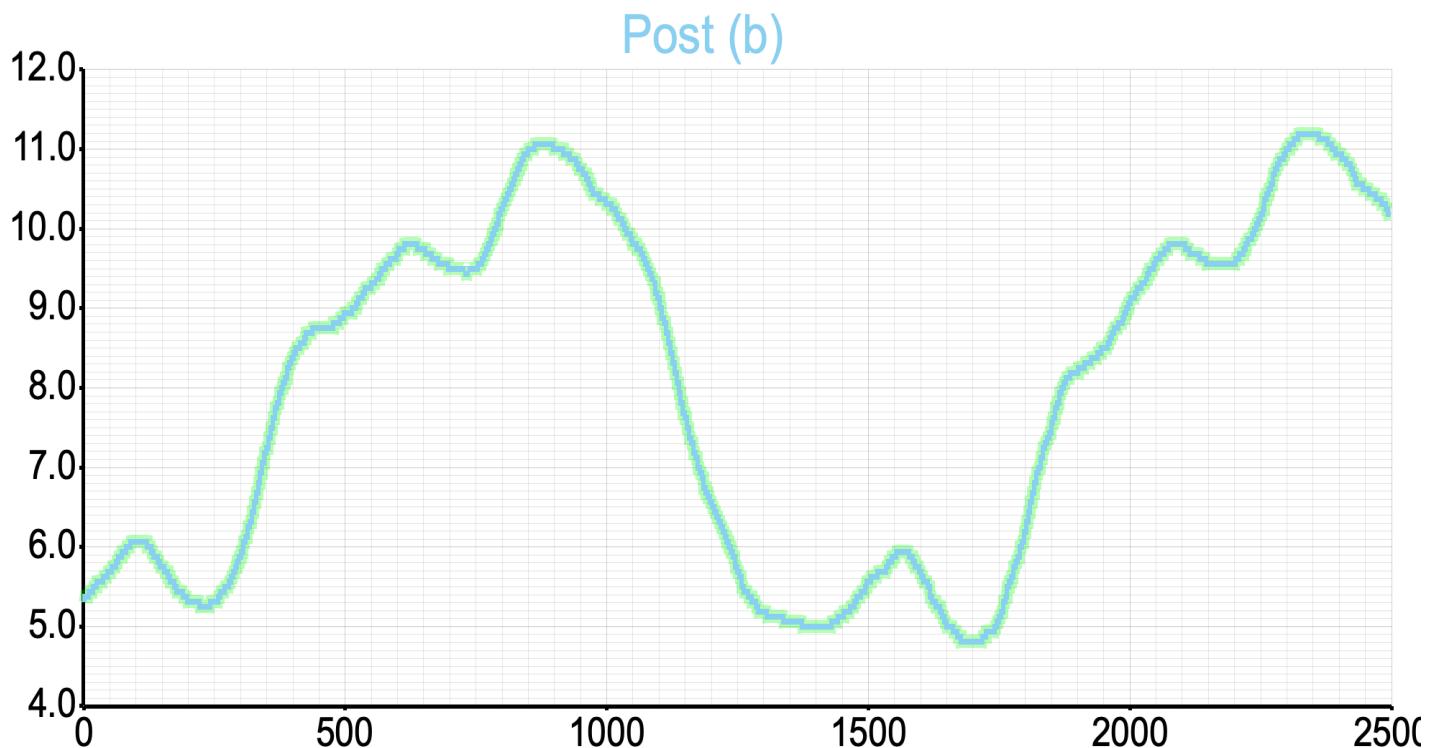
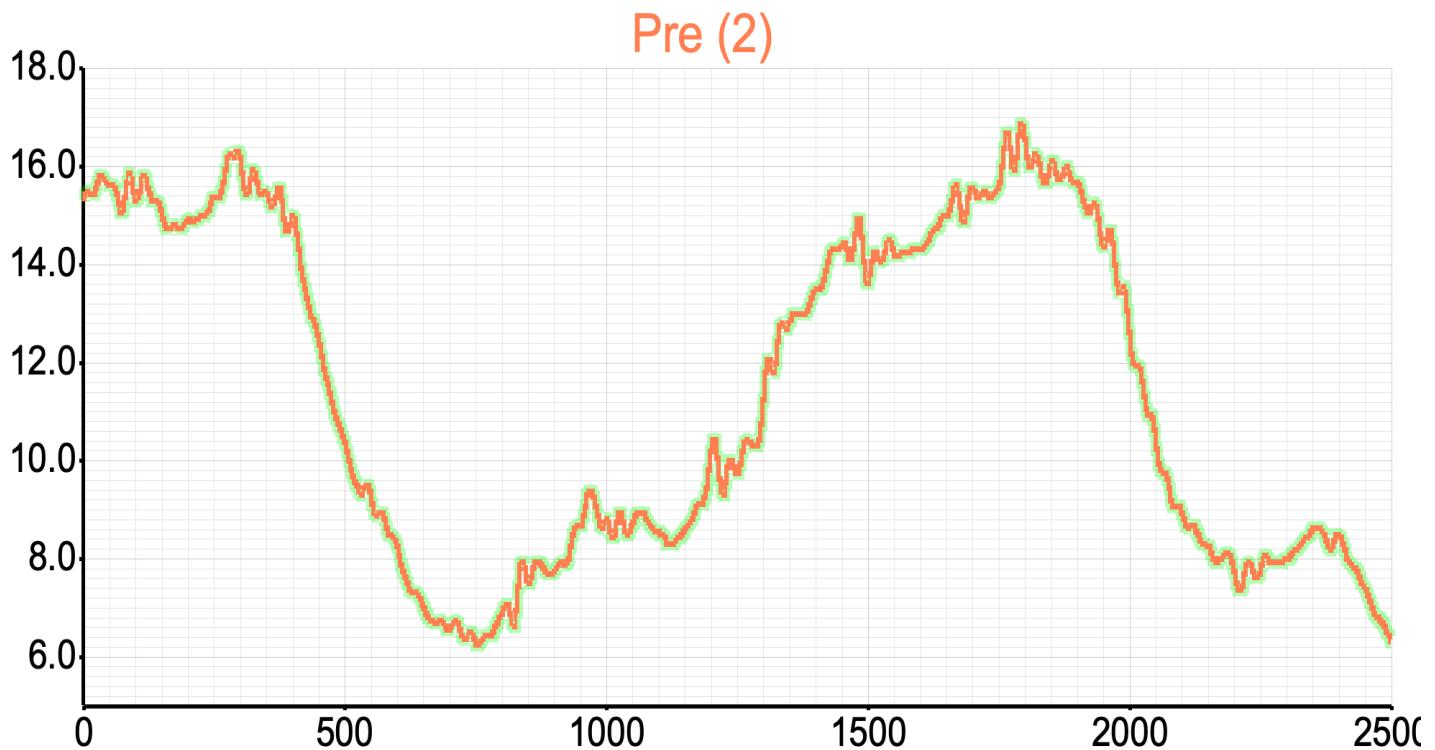
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	17.7	17.7	19.2	19.2
Cardiac Amp	3.6	3.6	3.7	3.7
High Freq Power	55202.2	55202.2	12730.7	12730.7

Patient Patient 22 - RJ - Sample 2



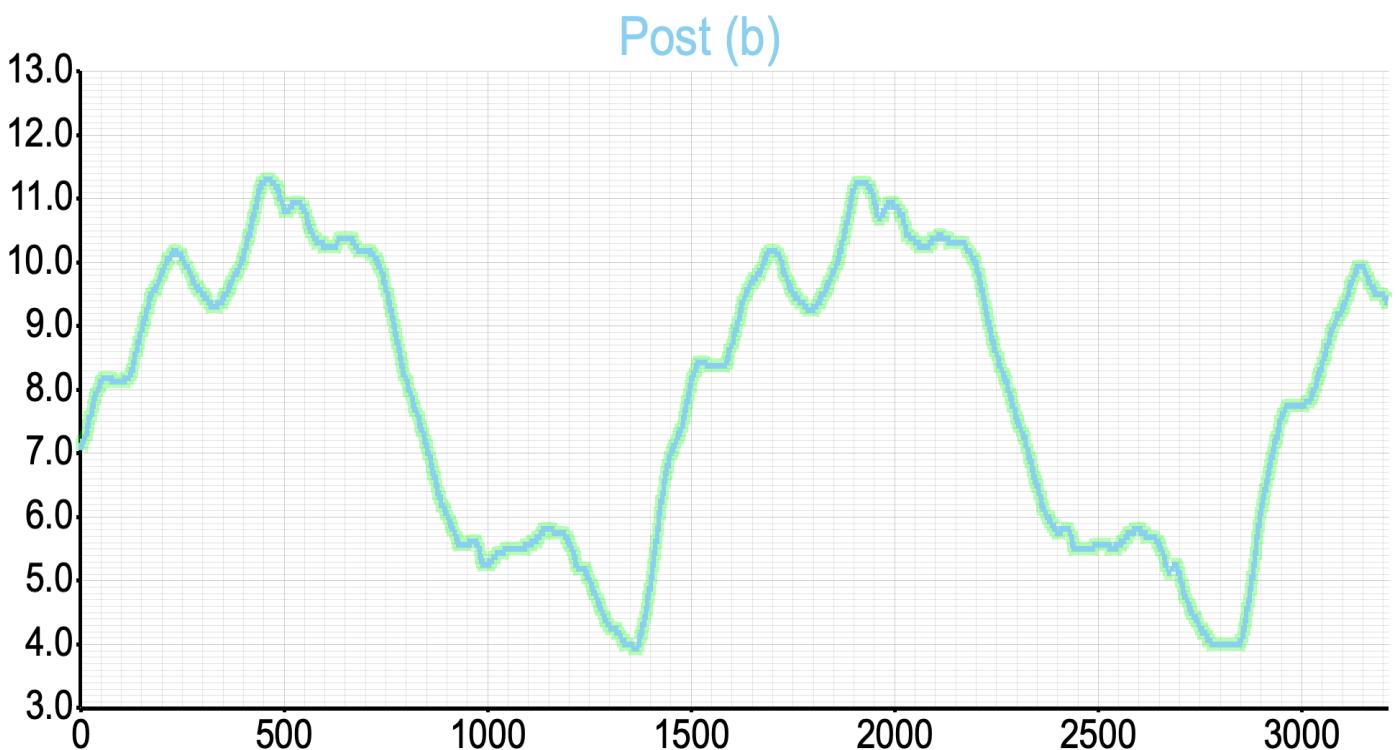
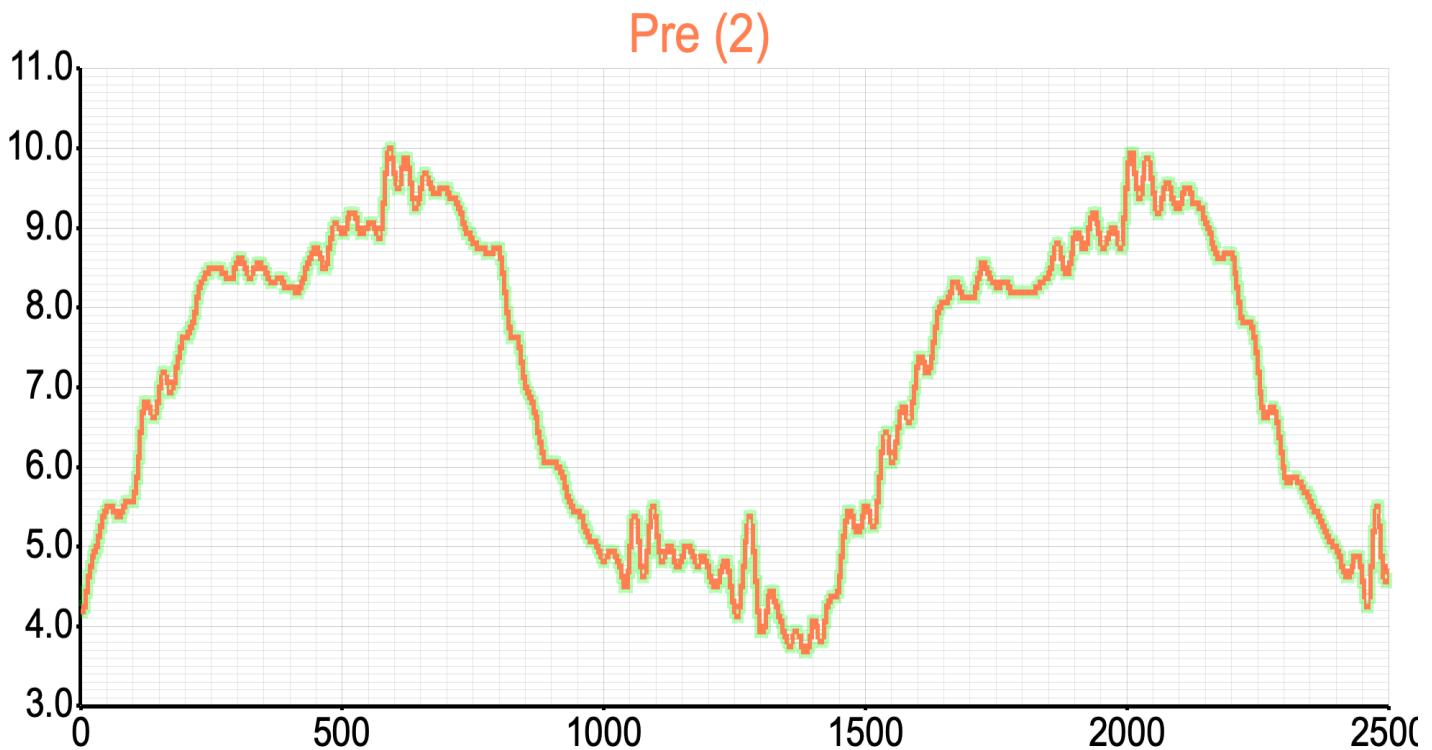
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	17.1	17.1	-	-
Cardiac Amp	3.1	3.1	-	-
High Freq Power	101628.8	101628.8	-	-

Patient Patient 23 - LJ - Sample 1



Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	11.4	11.4	8.0	8.0
Cardiac Amp	3.1	3.1	1.4	1.4
High Freq Power	327800.2	327800.2	74820.4	74820.4

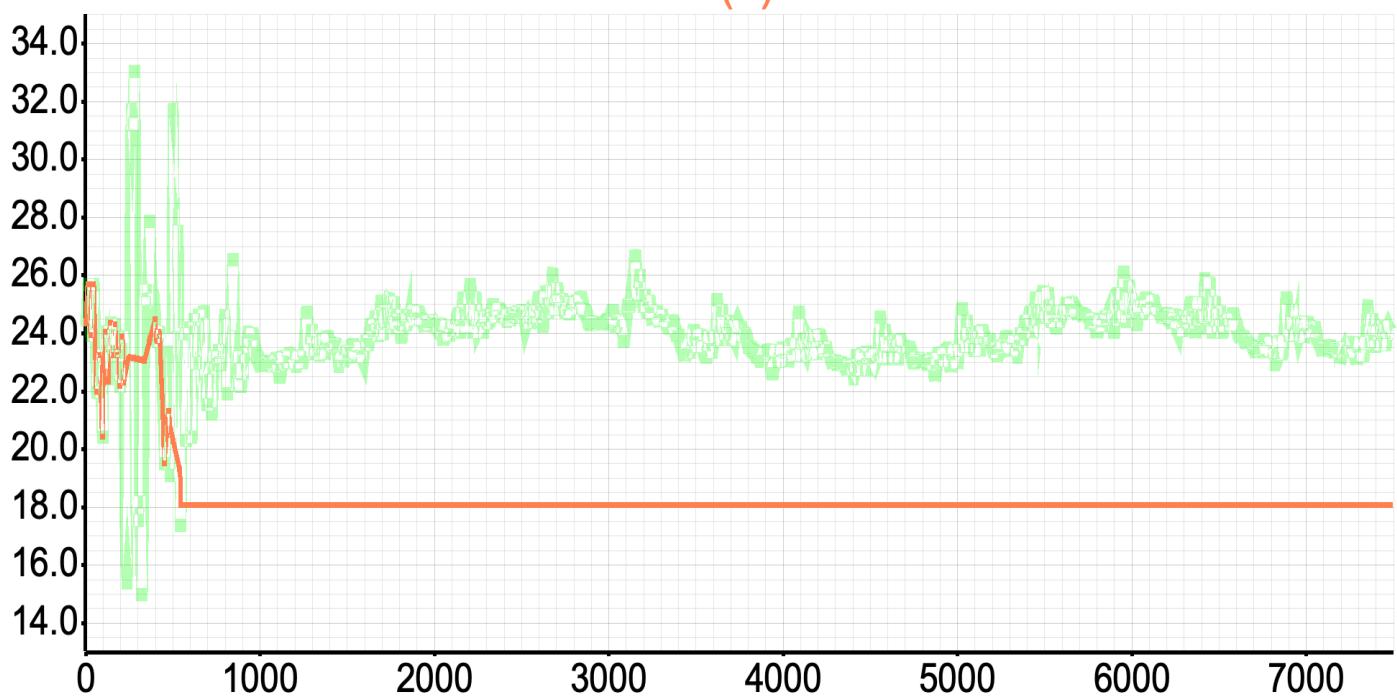
Patient Patient 23 - RJ - Sample 1



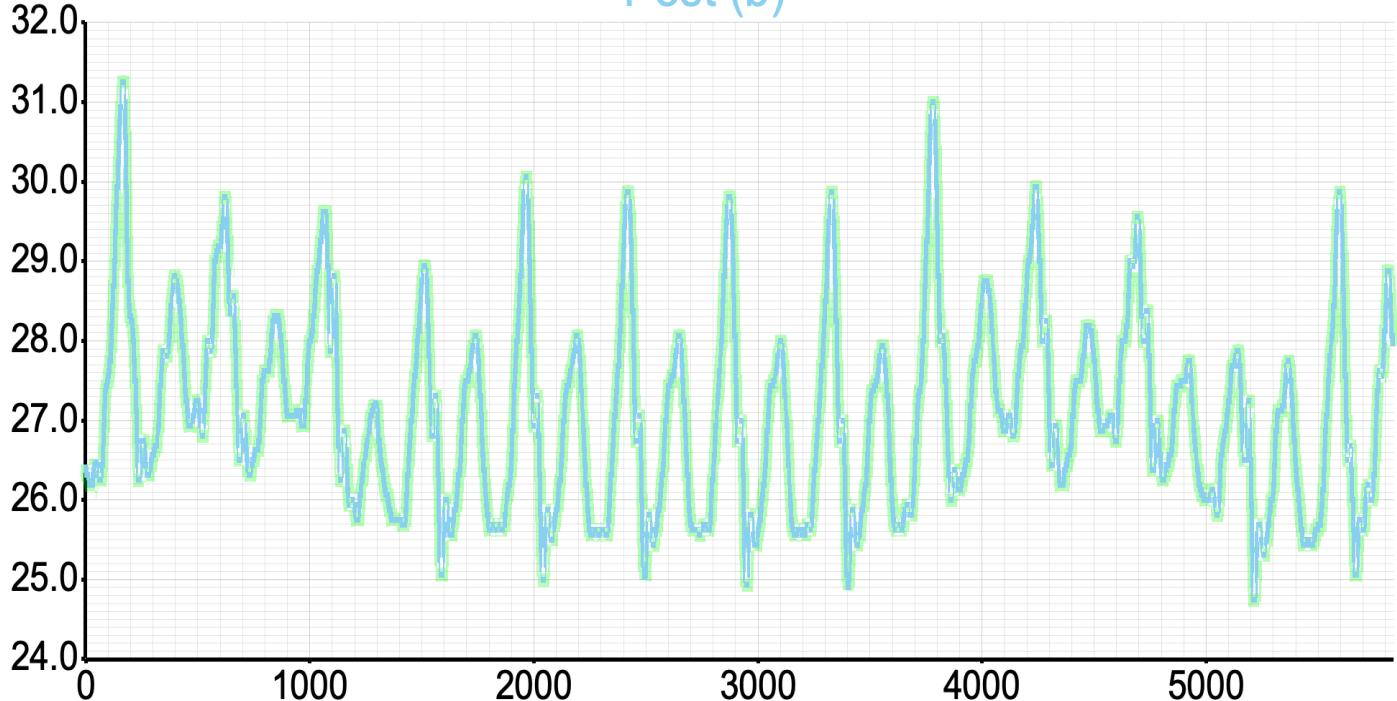
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	7.1	7.1	7.9	7.9
Cardiac Amp	2.0	2.0	2.2	2.2
High Freq Power	61709.7	61709.7	26081.6	26081.6

Patient Patient 24 - LJ - Sample 1

Pre (2)

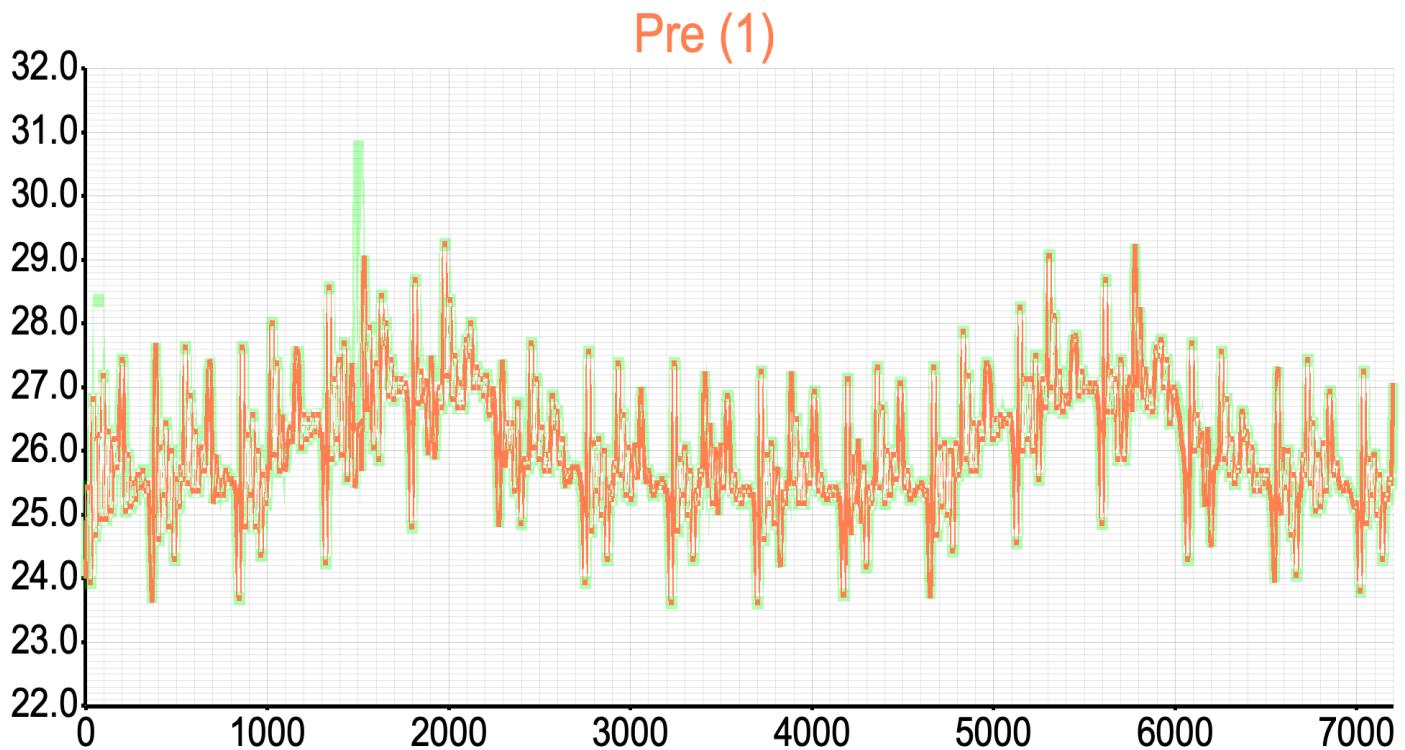


Post (b)

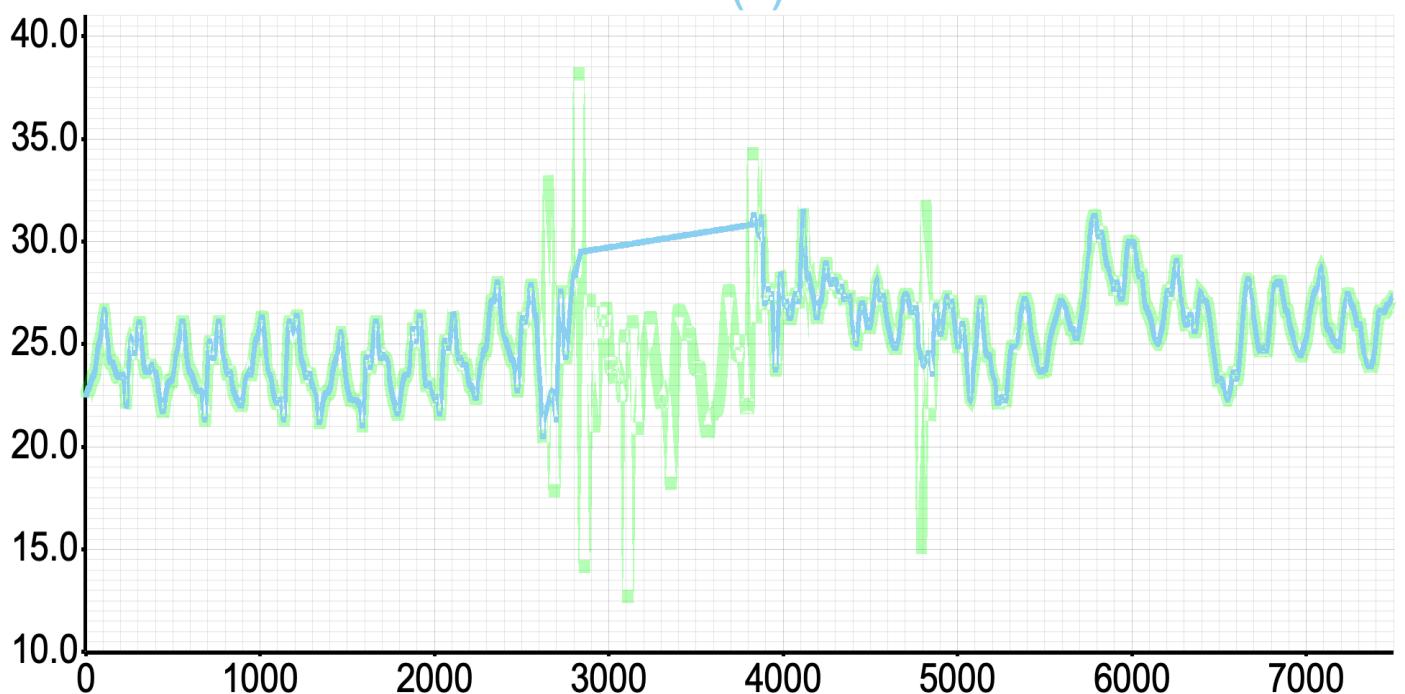


Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	24.0	18.4	27.1	27.1
Cardiac Amp	16.2	2.6	4.9	4.9
High Freq Power	7137321.8	874803.7	487831.7	487831.7

Patient Patient 24 - RJ - Sample 1

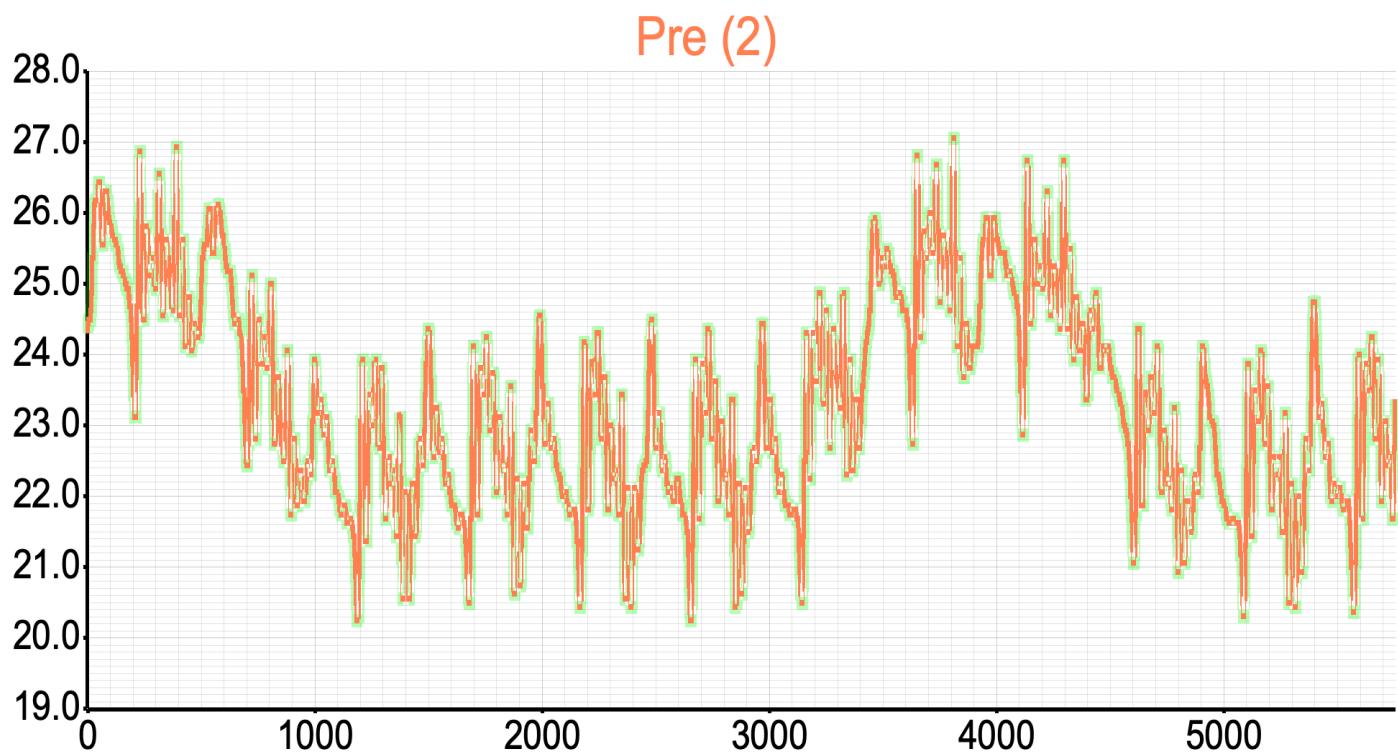


Post (b)



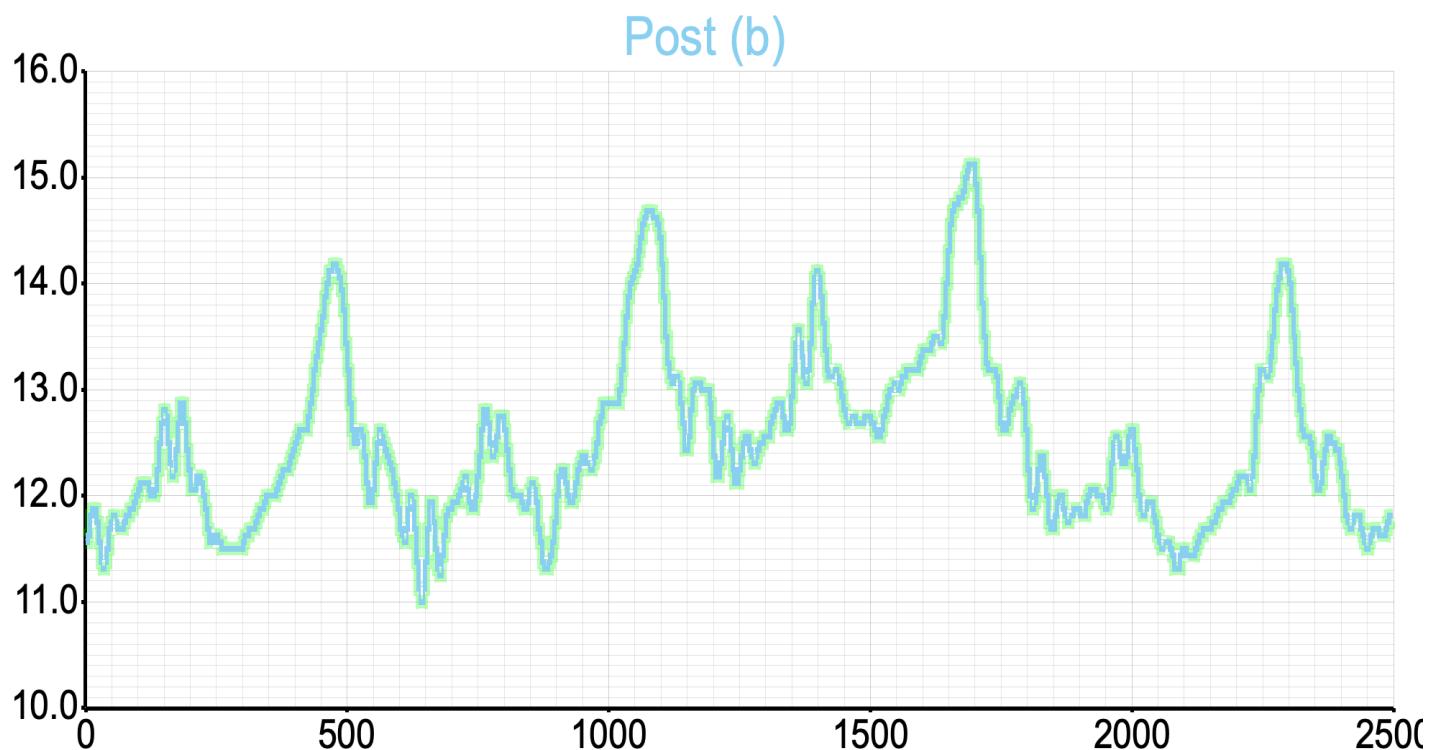
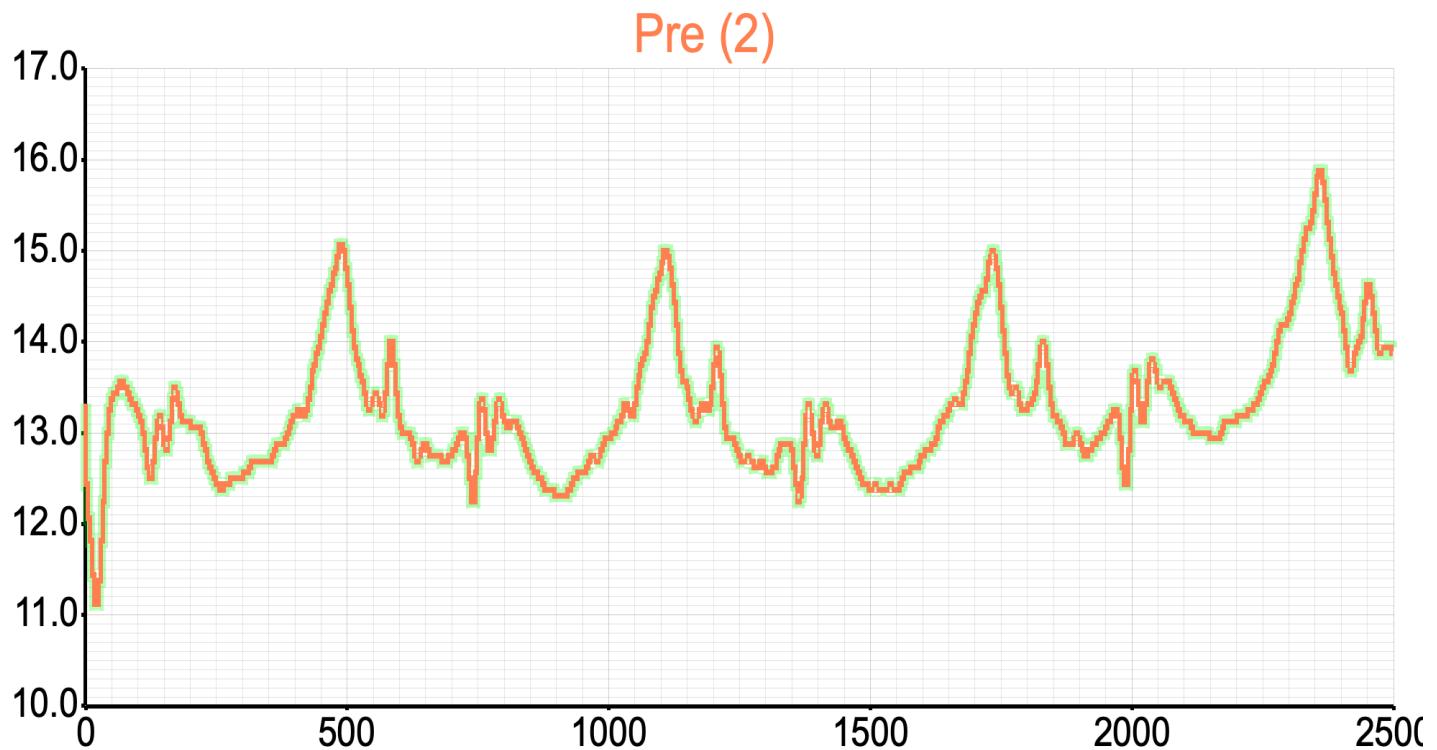
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	26.1	26.1	25.2	26.0
Cardiac Amp	5.6	4.0	20.4	3.8
High Freq Power	5997633.1	5445002.8	9603671.8	1505242.8

Patient Patient 24 - RJ - Sample 2



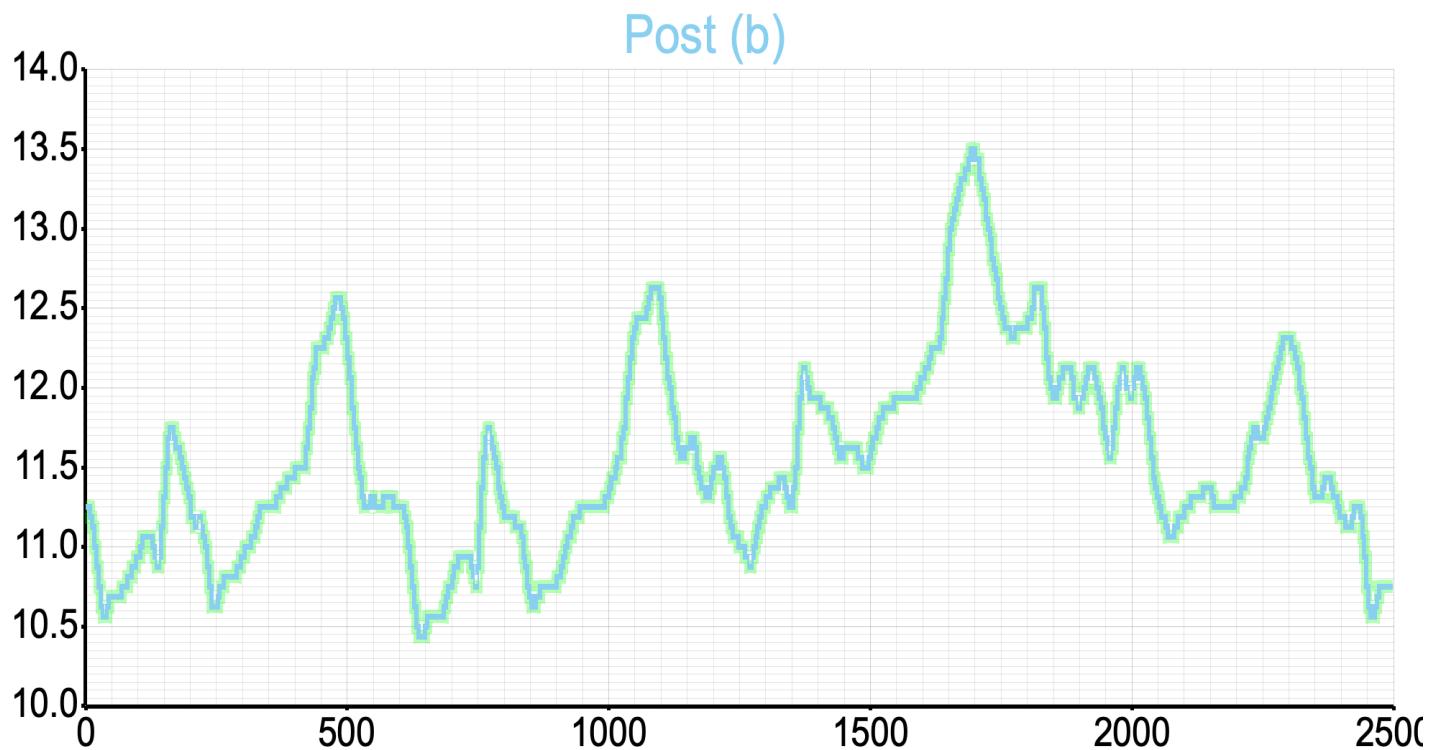
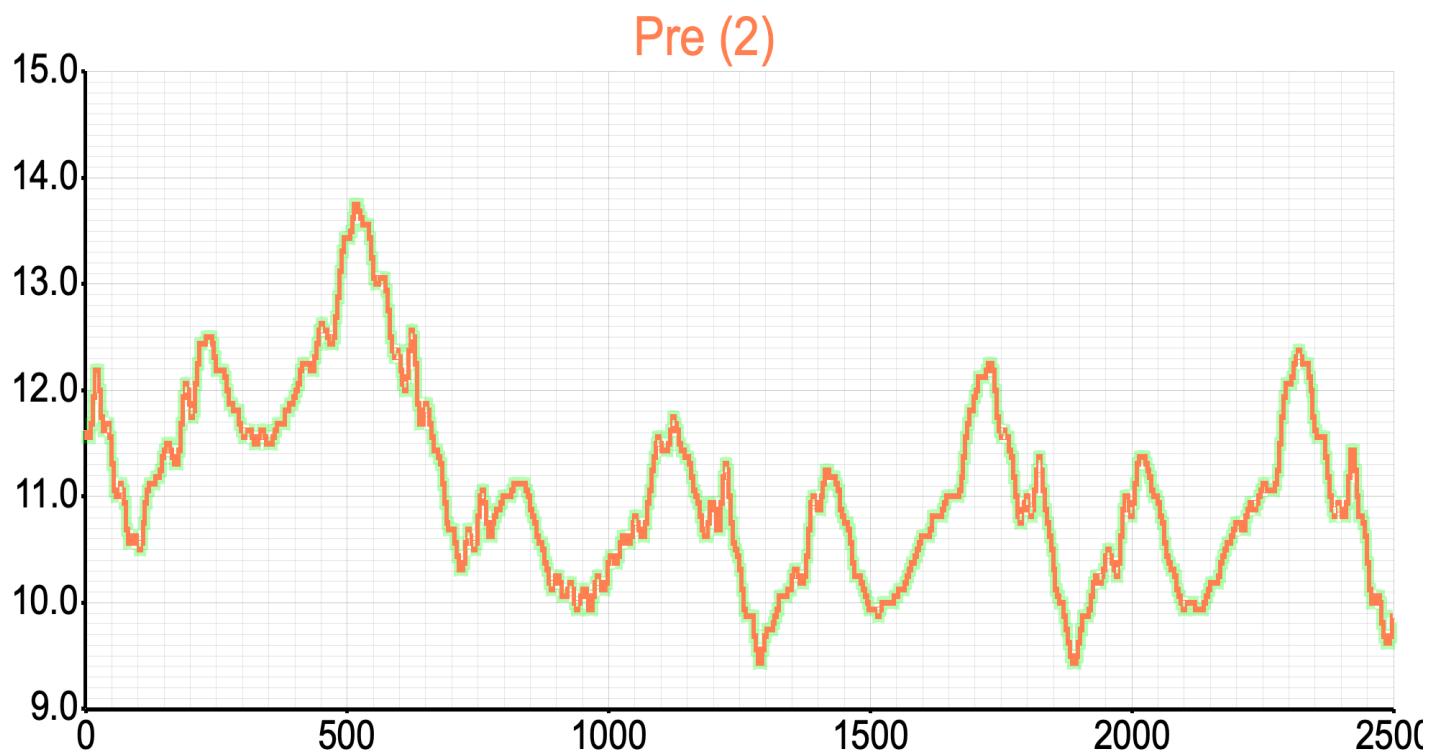
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	23.3	23.3	-	-
Cardiac Amp	3.8	3.8	-	-
High Freq Power	3734414.8	3734414.8	-	-

Patient Patient 25 - LJ - Sample 1



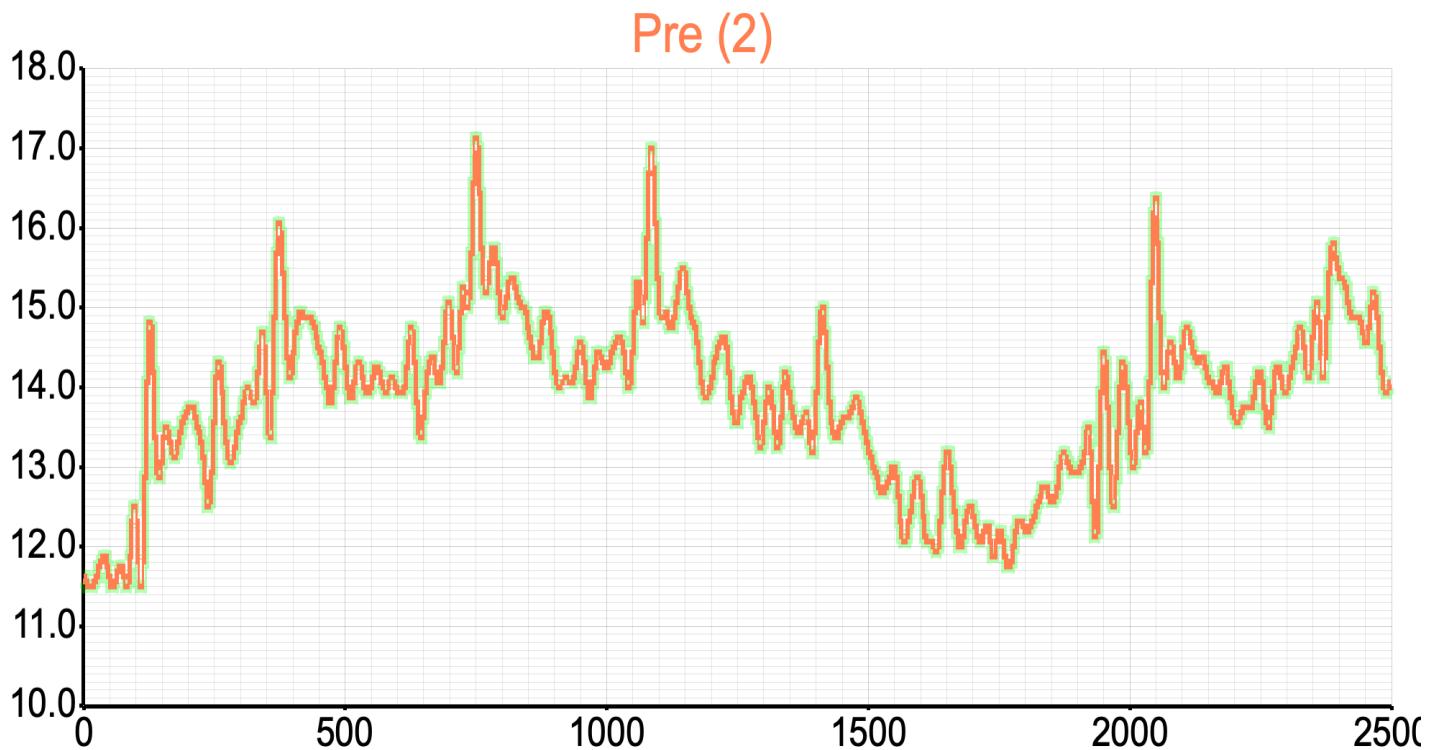
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	13.3	13.3	12.5	12.5
Cardiac Amp	3.7	3.7	2.9	2.9
High Freq Power	53049.3	53049.3	68672.4	68672.4

Patient Patient 25 - RJ - Sample 1



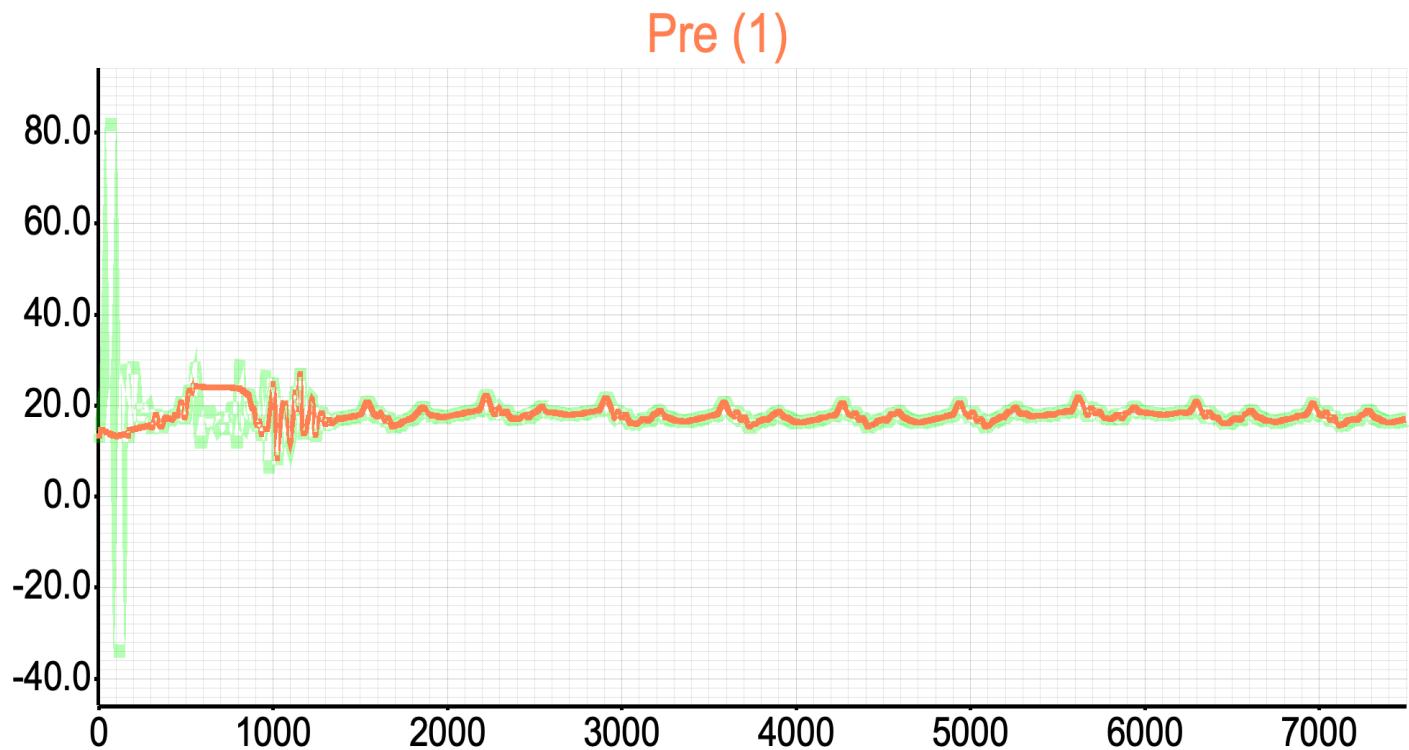
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	11.1	11.1	11.5	11.5
Cardiac Amp	2.5	2.5	1.8	1.8
High Freq Power	39555.0	39555.0	8996.2	8996.2

Patient Patient 26 - RJ - Sample 1

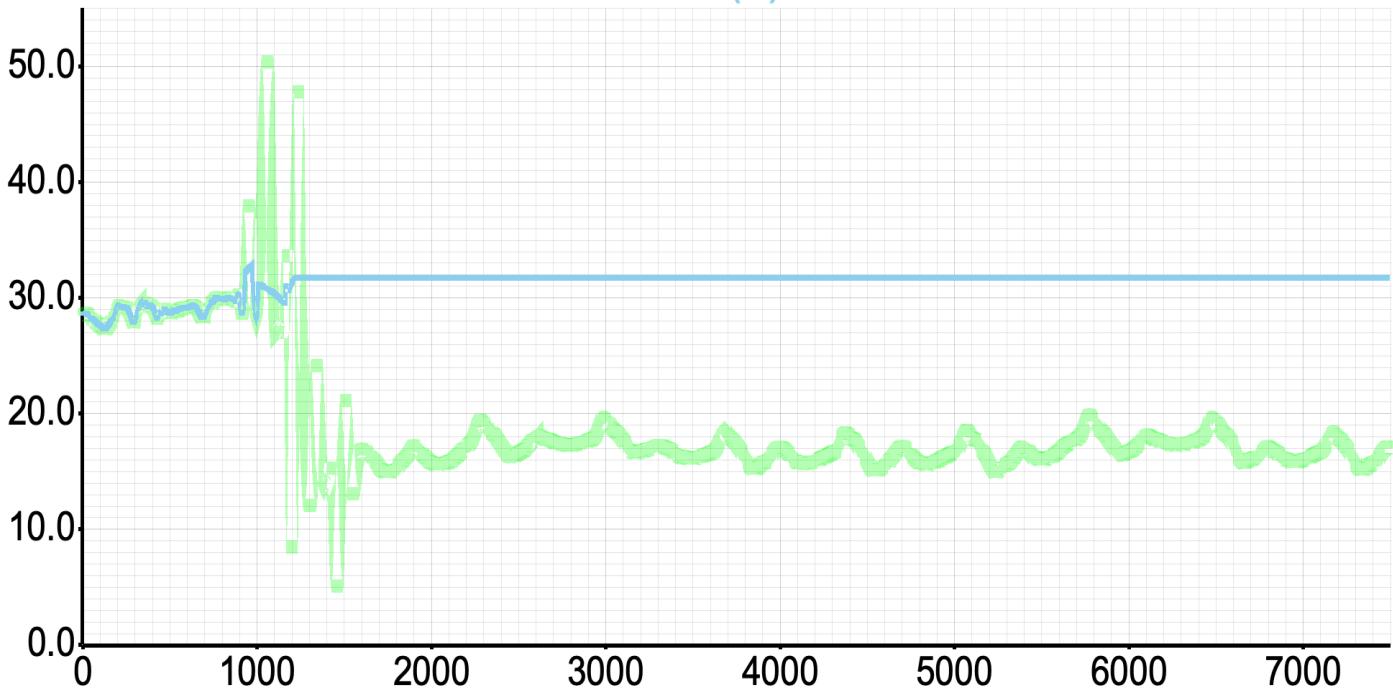


Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	13.9	13.9	-	-
Cardiac Amp	3.4	3.4	-	-
High Freq Power	320403.2	320403.2	-	-

Patient Patient 27 - LJ - Sample 1

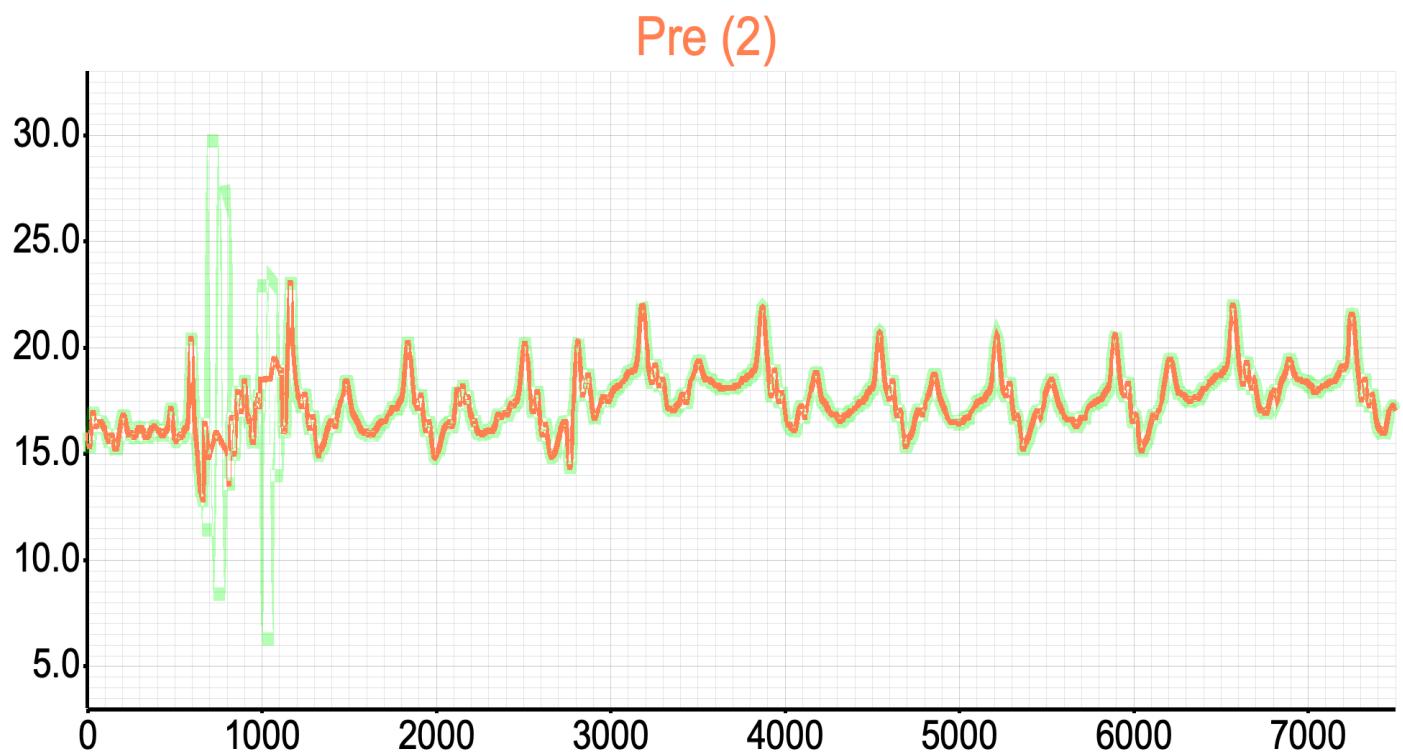


Post (b)



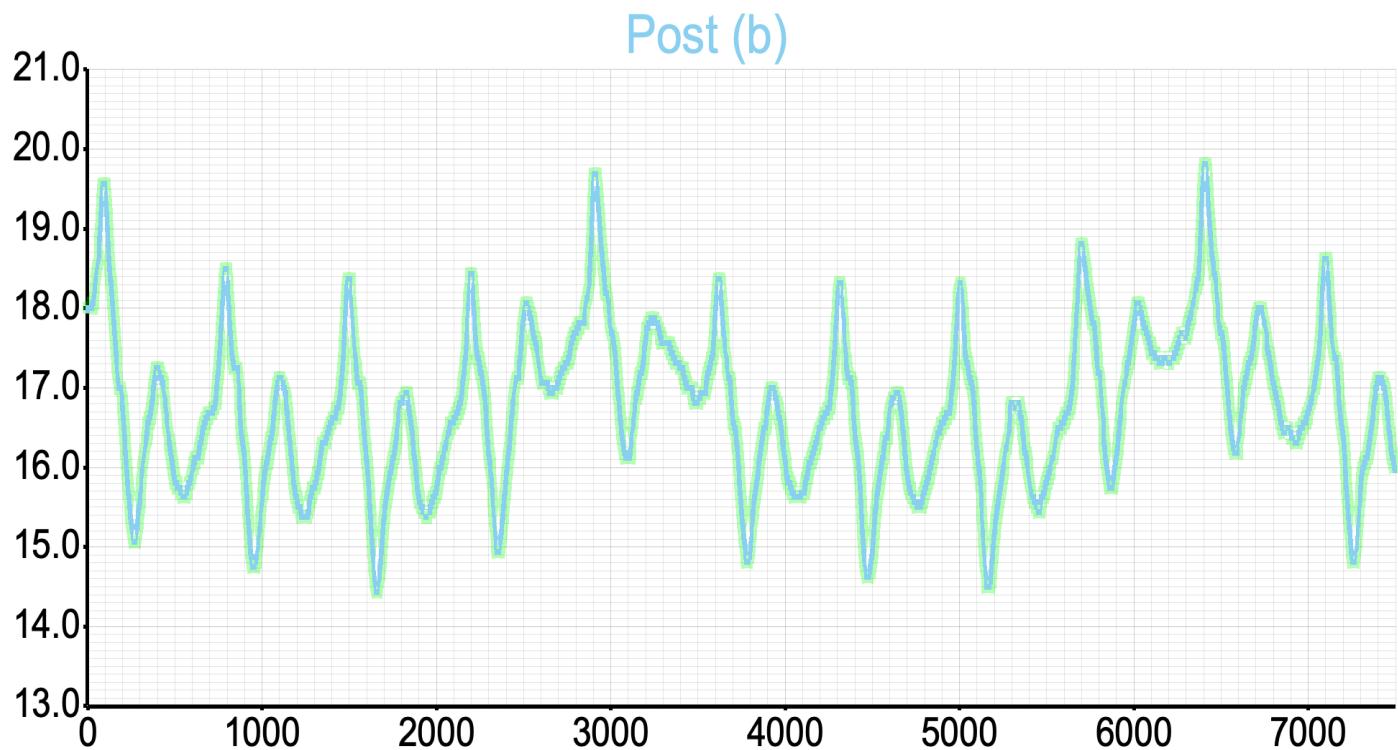
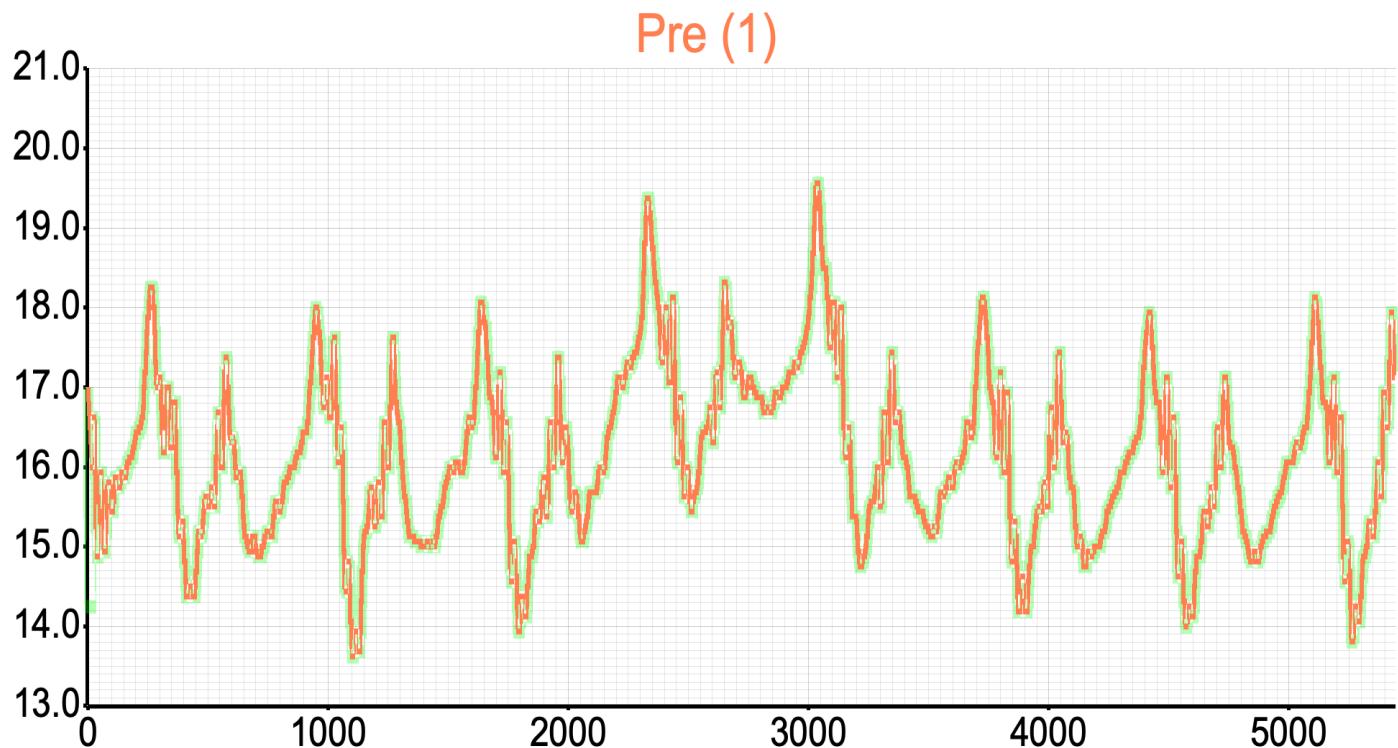
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	18.0	17.9	19.1	31.4
Cardiac Amp	111.6	11.8	28.2	2.3
High Freq Power	26843909.7	4064863.4	6511303.6	284203.7

Patient Patient 27 - LJ - Sample 2



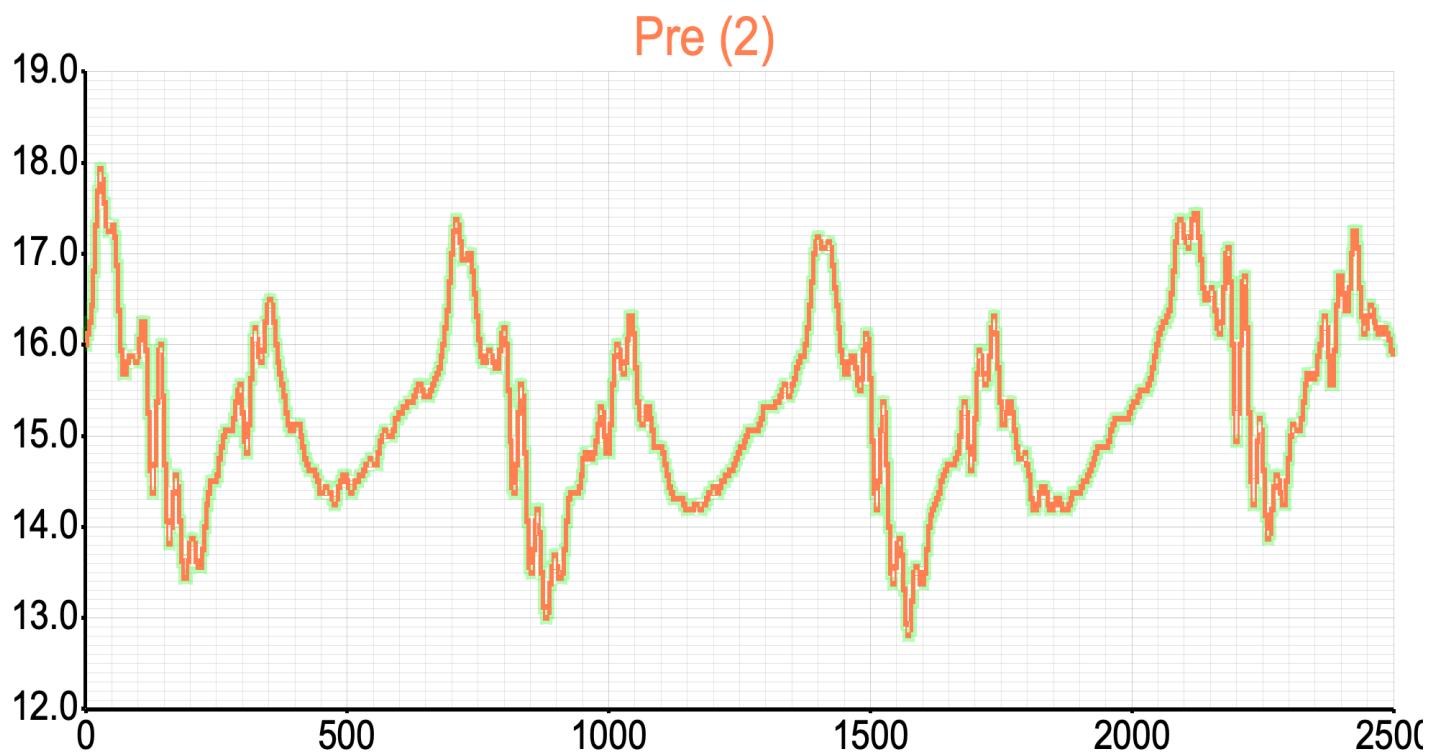
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	17.5	17.5	-	-
Cardiac Amp	20.6	7.3	-	-
High Freq Power	5491892.5	1103940.7	-	-

Patient Patient 27 - RJ - Sample 1



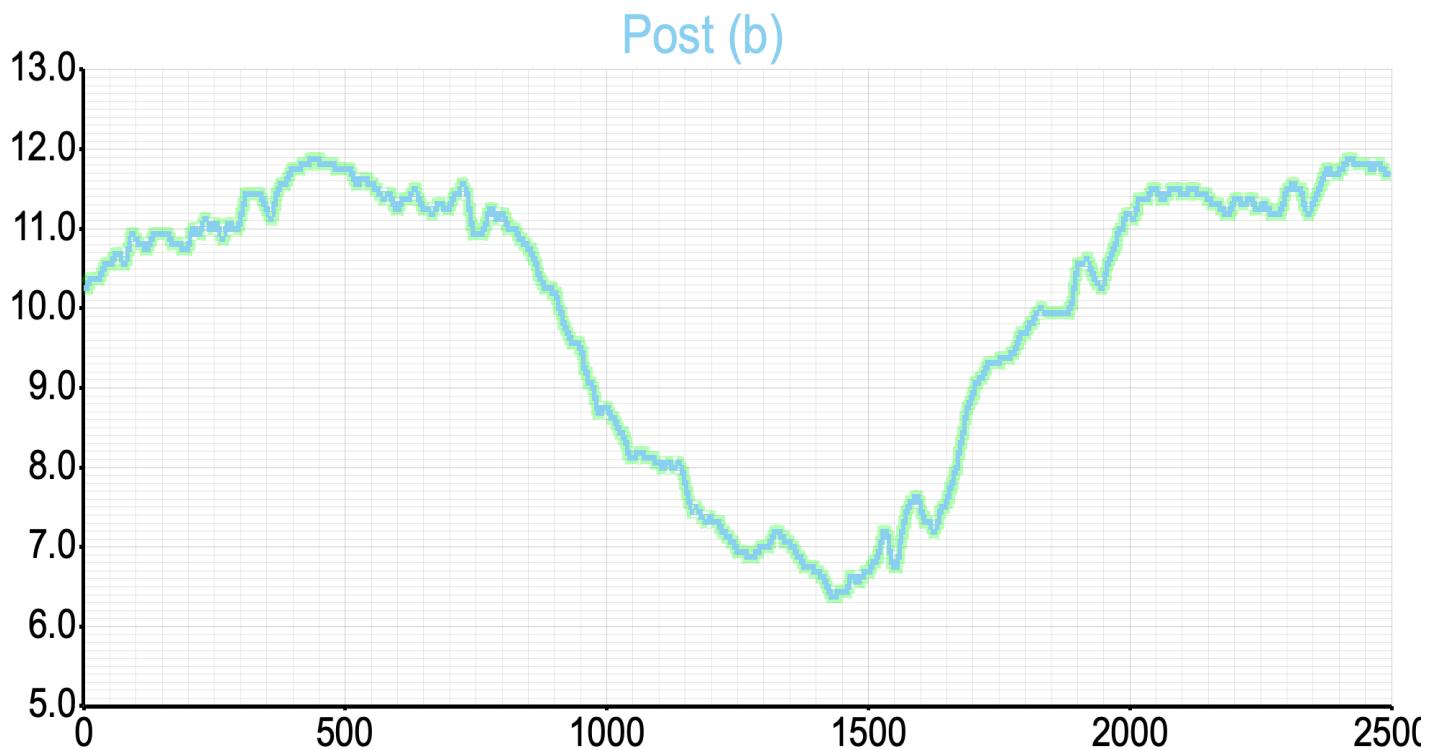
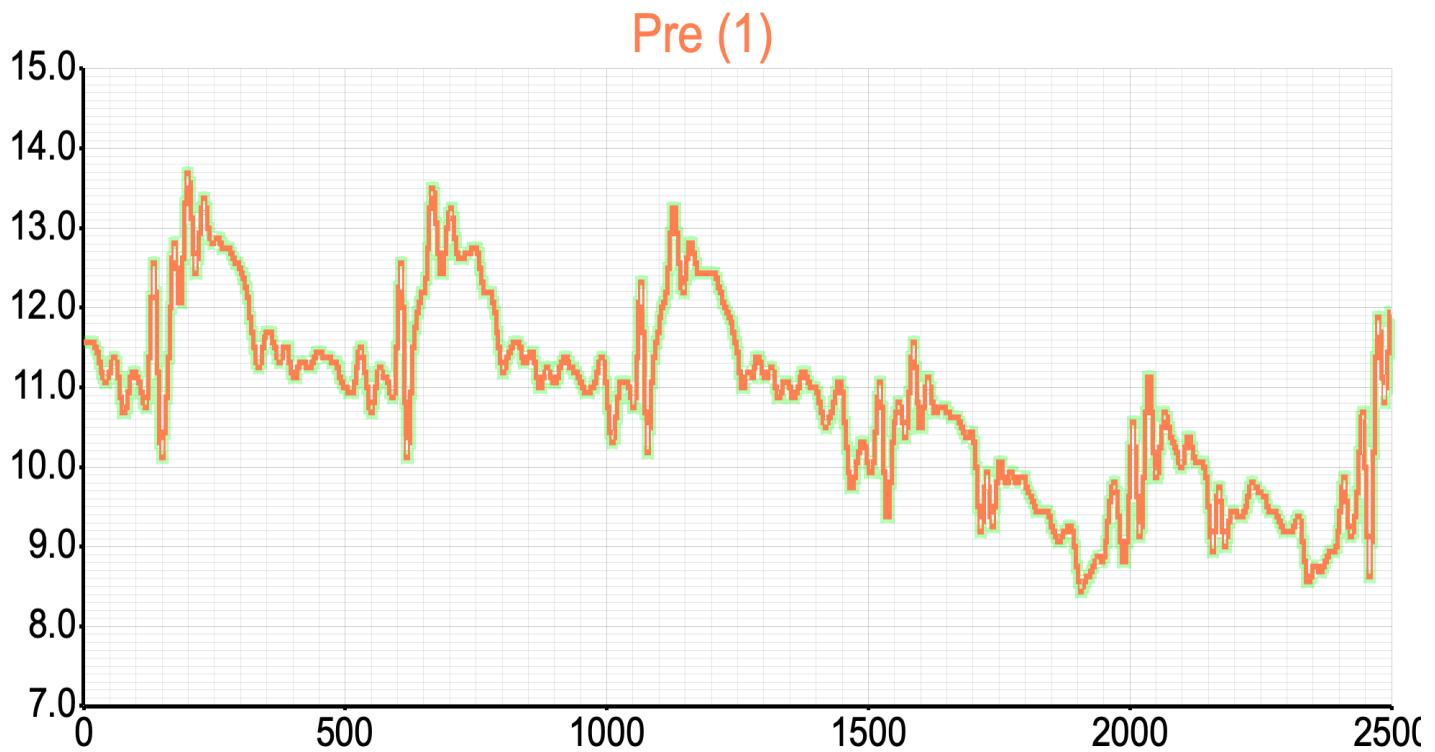
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	16.1	16.1	16.8	16.8
Cardiac Amp	3.9	3.9	3.3	3.3
High Freq Power	696627.0	607336.3	77251.2	77251.2

Patient Patient 27 - RJ - Sample 2



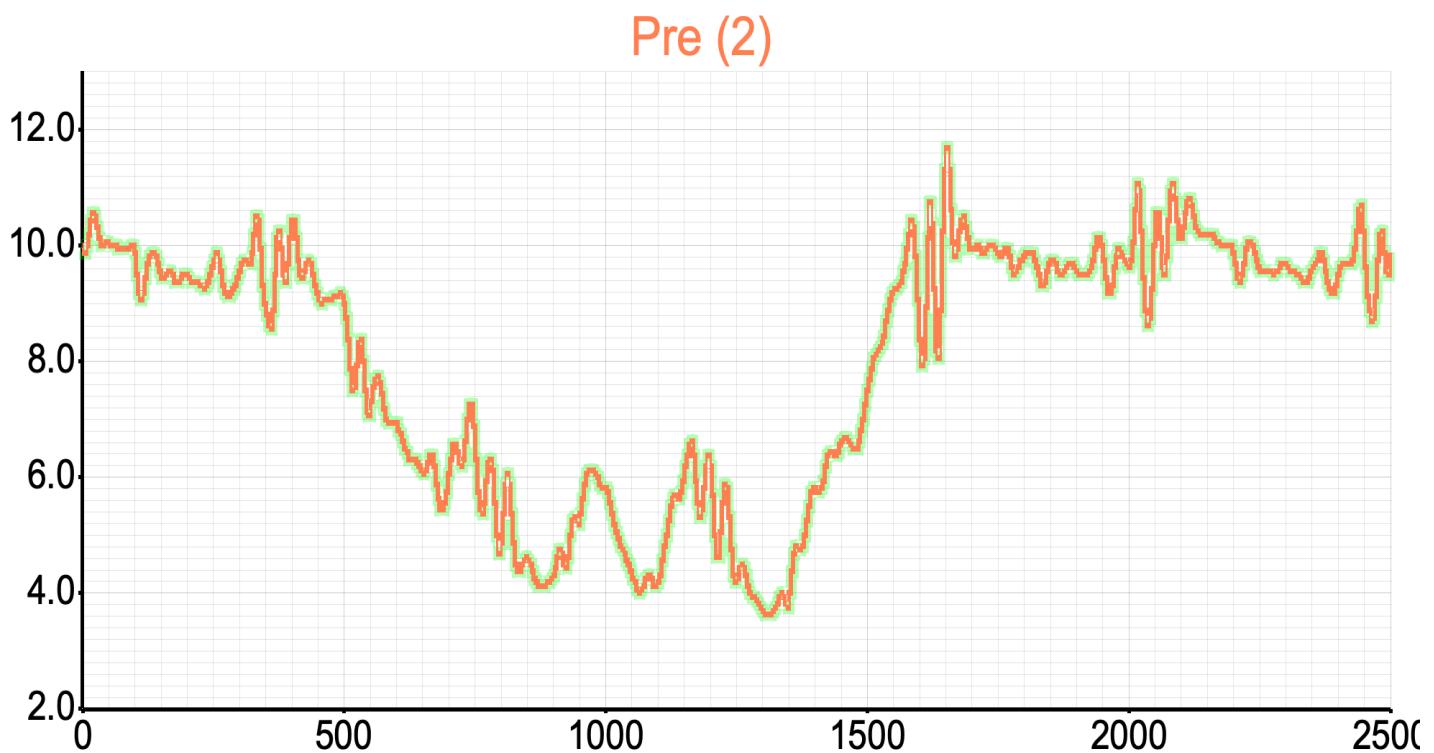
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	15.3	15.3	-	-
Cardiac Amp	3.8	3.8	-	-
High Freq Power	186860.8	186860.8	-	-

Patient Patient 28 - LJ - Sample 1



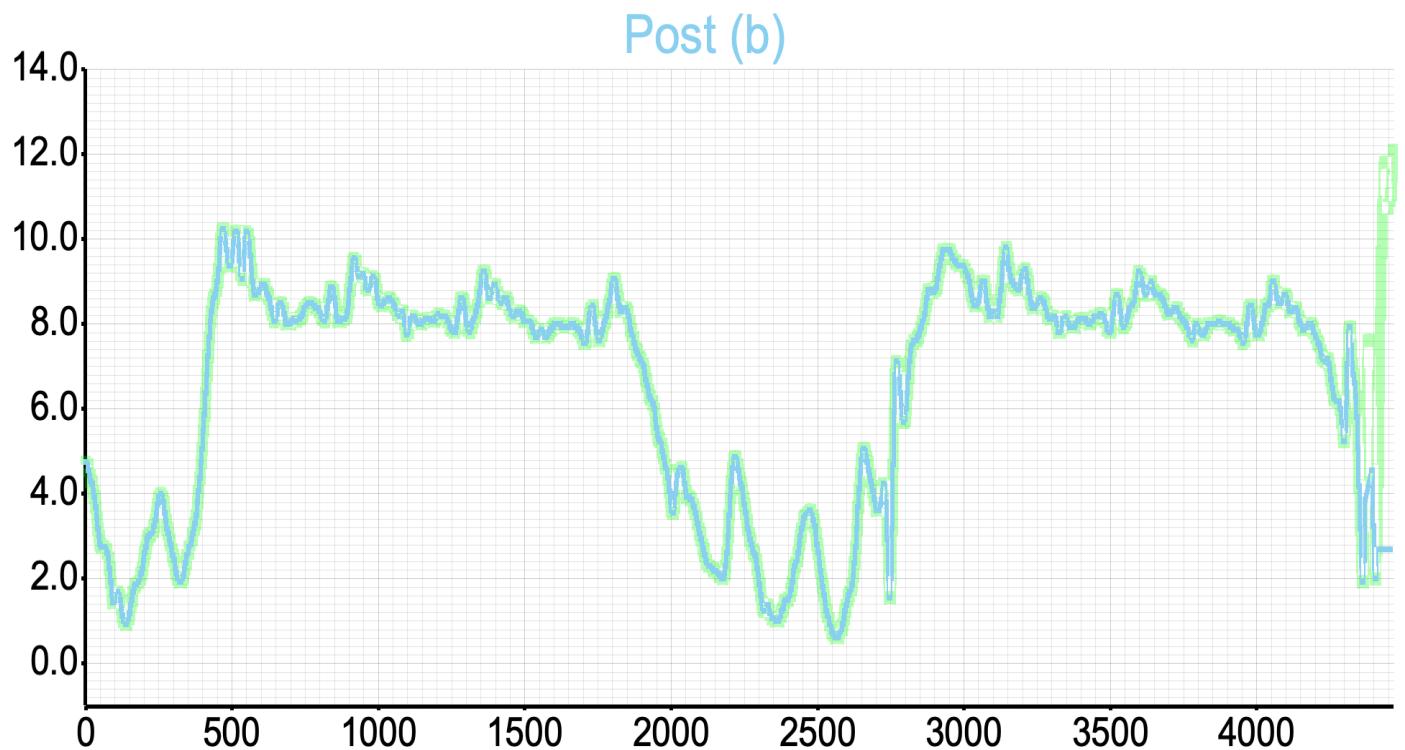
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	10.9	10.9	9.9	9.9
Cardiac Amp	2.9	2.9	1.0	1.0
High Freq Power	255563.9	255563.9	11975.8	11975.8

Patient Patient 28 - LJ - Sample 2



Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	8.0	8.0	-	-
Cardiac Amp	3.0	3.0	-	-
High Freq Power	295052.8	295052.8	-	-

Patient Patient 28 - RJ - Sample 1



Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	10.4	10.4	6.7	6.6
Cardiac Amp	17.9	3.6	5.1	3.1
High Freq Power	3383136.4	336706.7	852120.9	358576.9

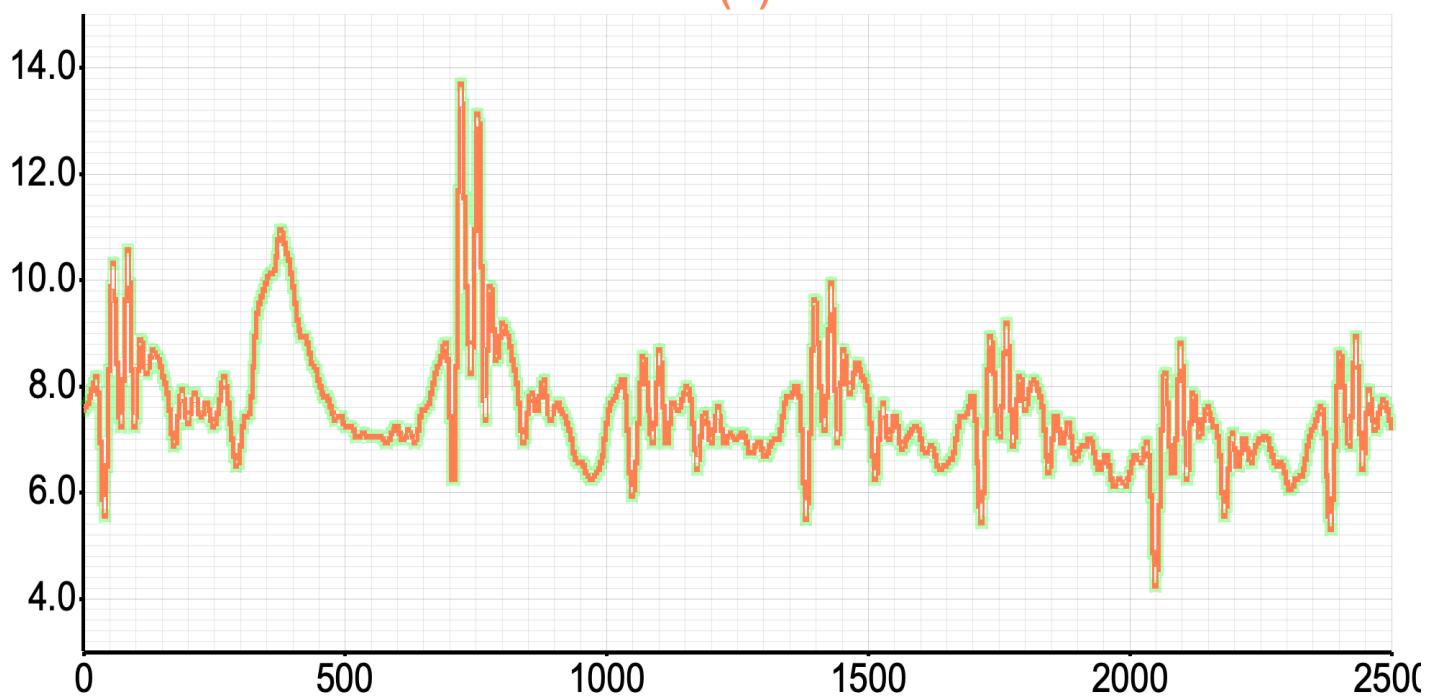
Patient Patient 28 - RJ - Sample 2



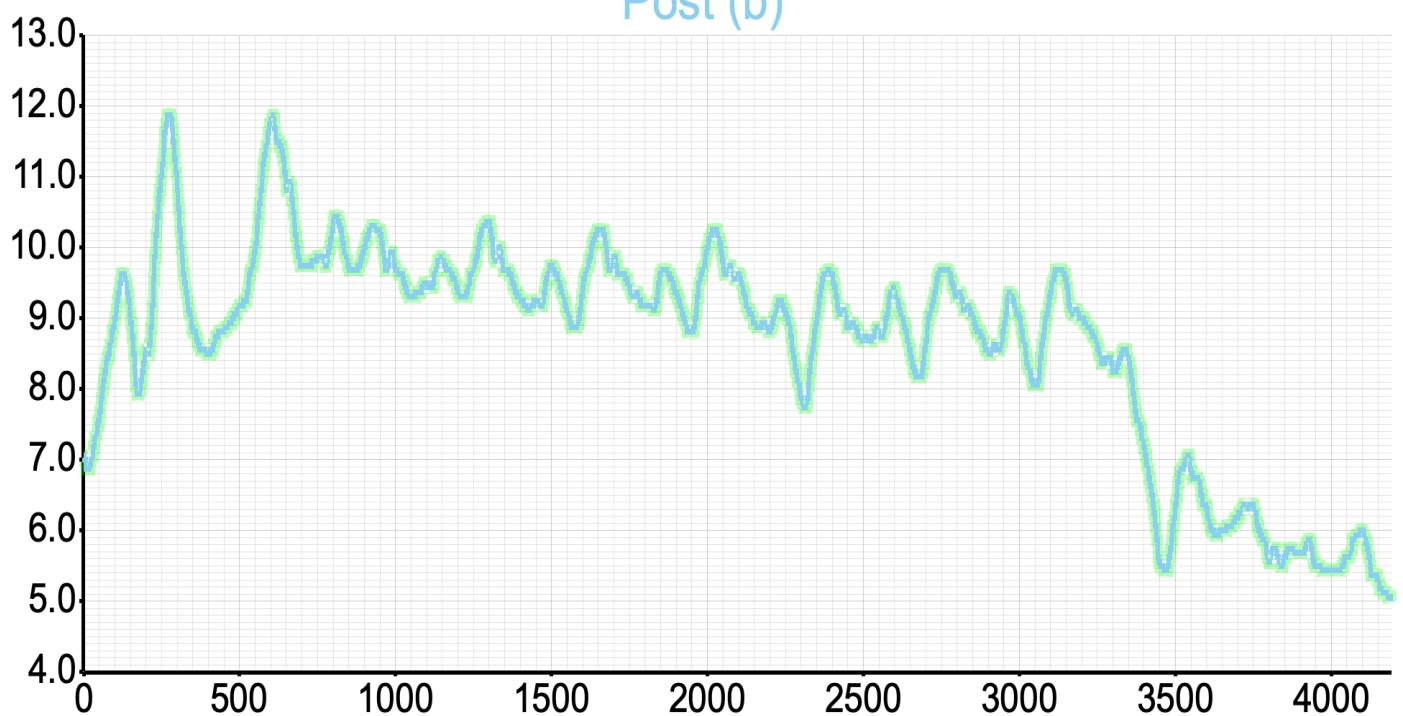
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	11.2	11.2	-	-
Cardiac Amp	8.0	8.0	-	-
High Freq Power	1663192.2	1663192.2	-	-

Patient Patient 29 - LJ - Sample 1

Pre (2)

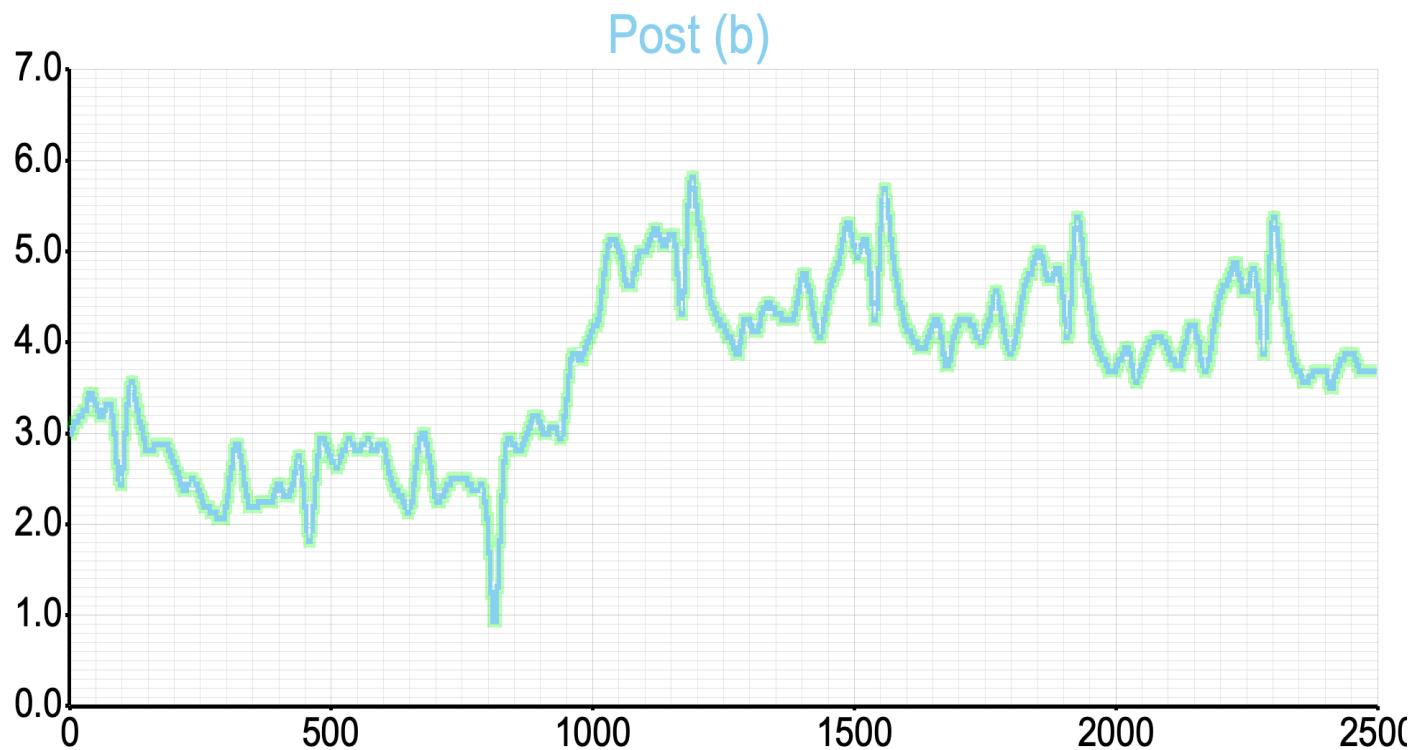
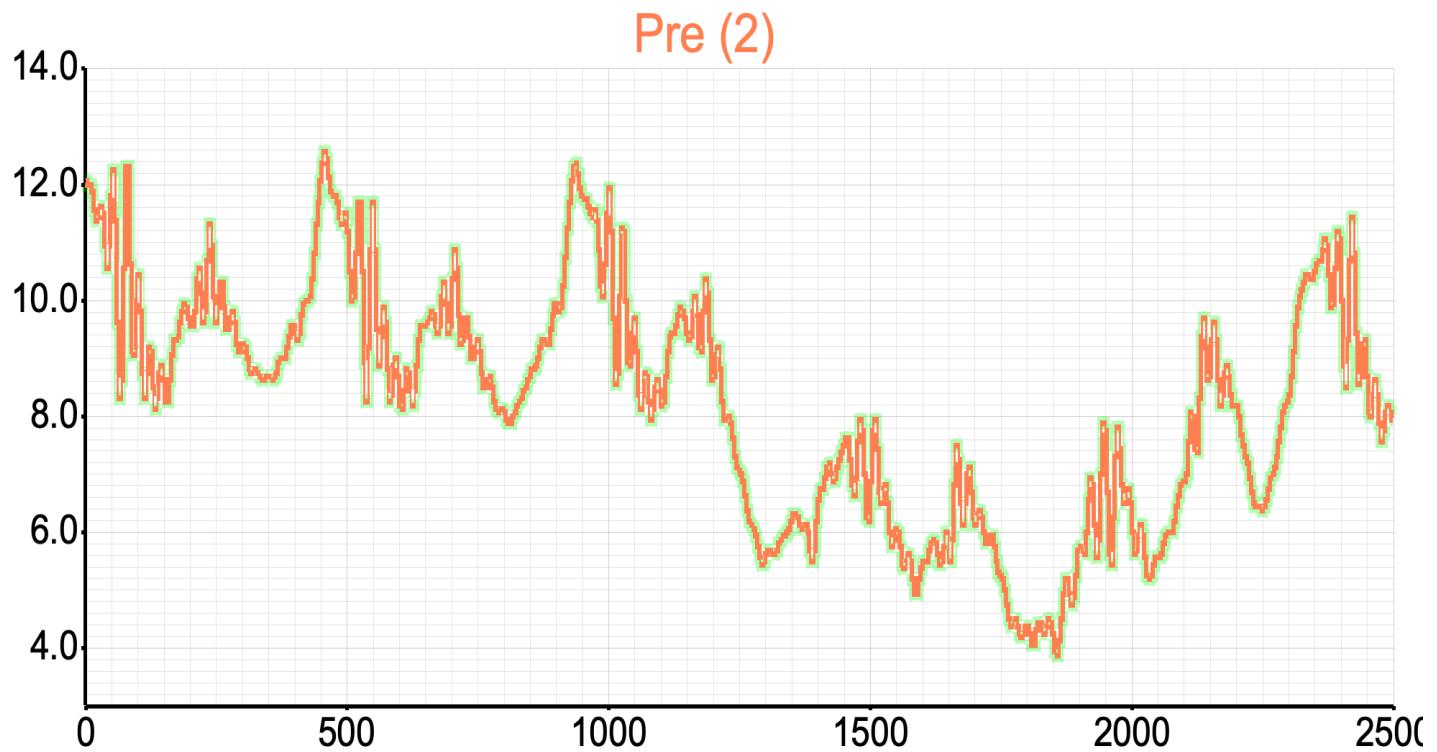


Post (b)



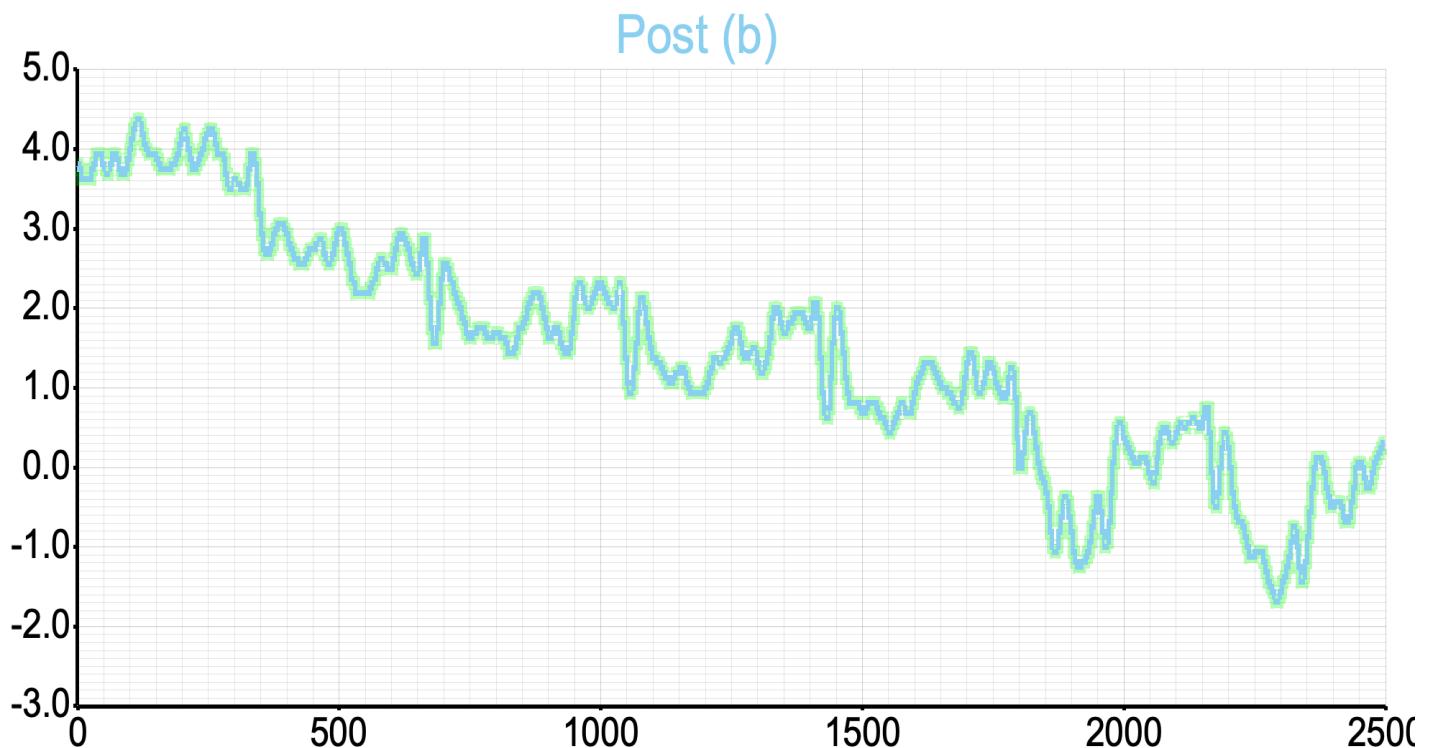
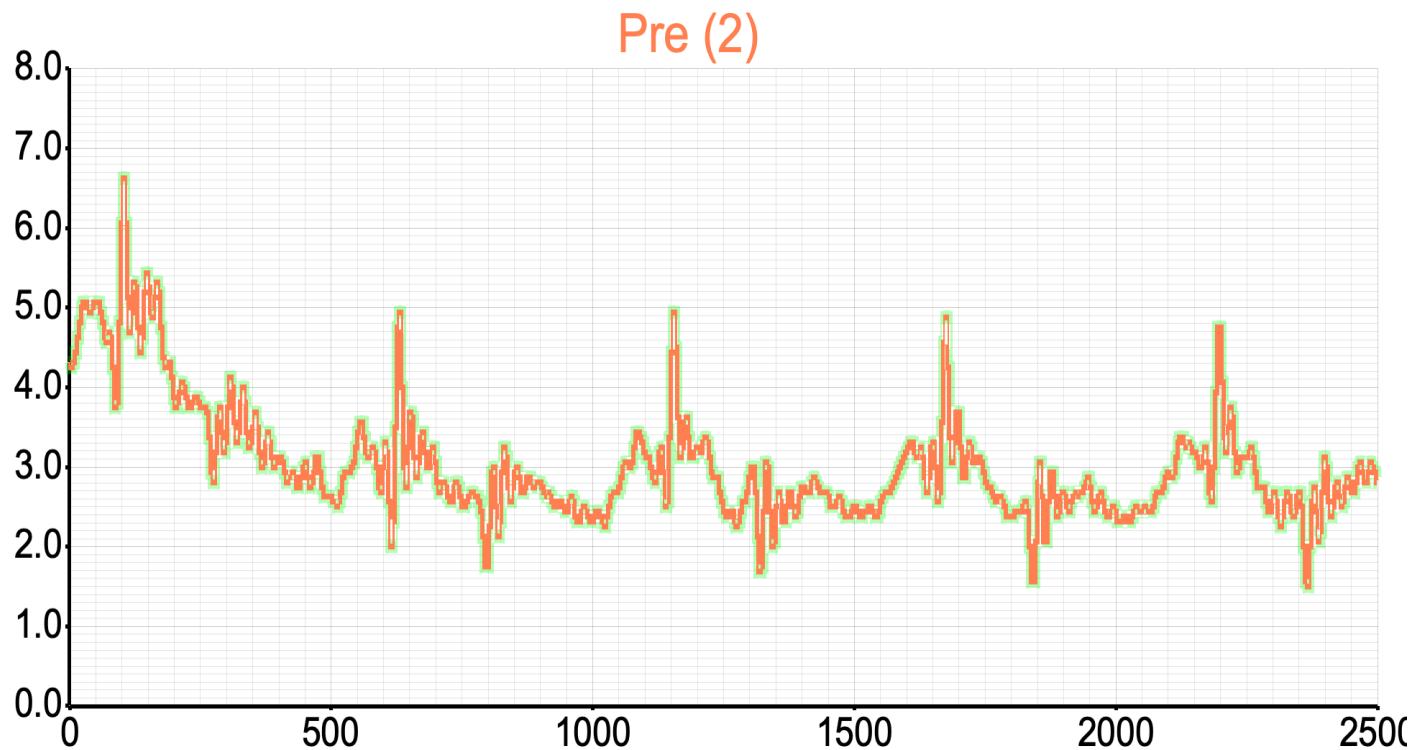
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	7.5	7.5	8.7	8.7
Cardiac Amp	7.7	7.7	2.4	2.4
High Freq Power	1092268.7	1092268.7	45376.0	45376.0

Patient Patient 29 - RJ - Sample 1



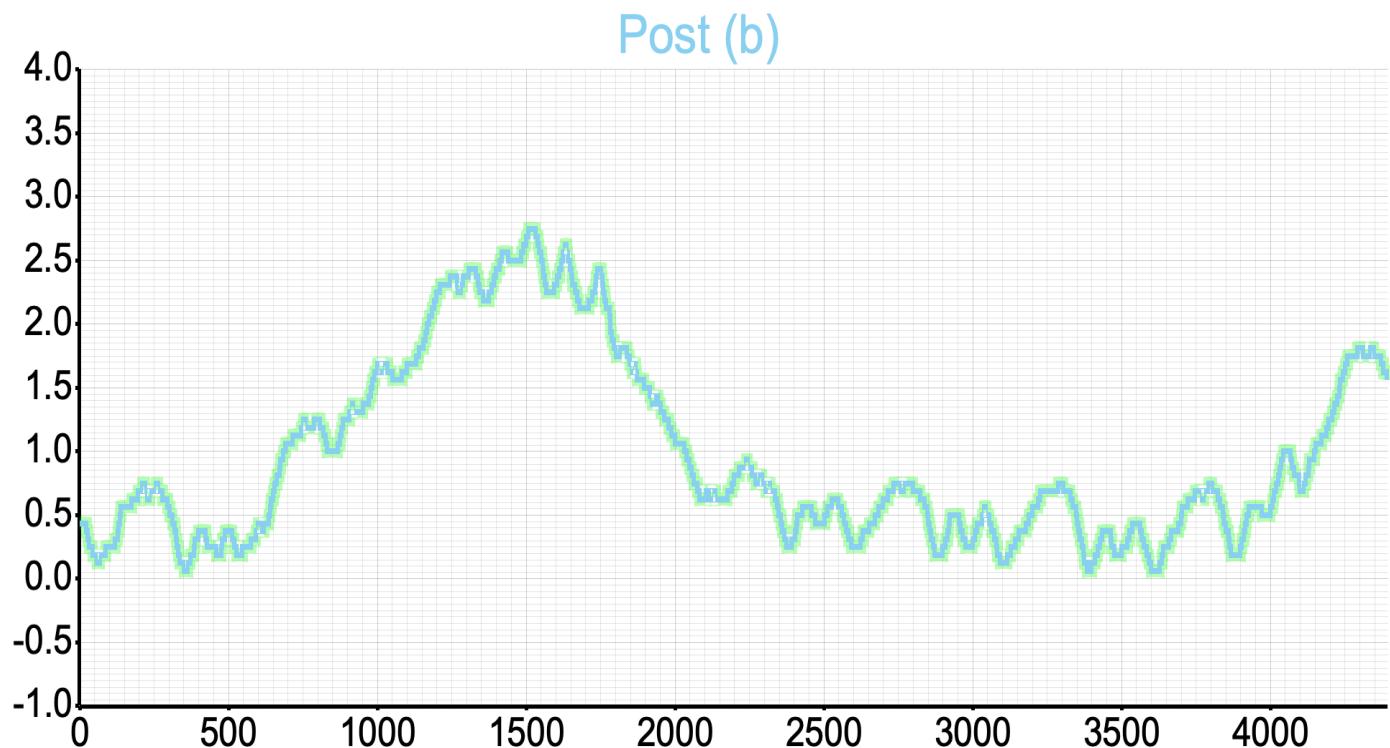
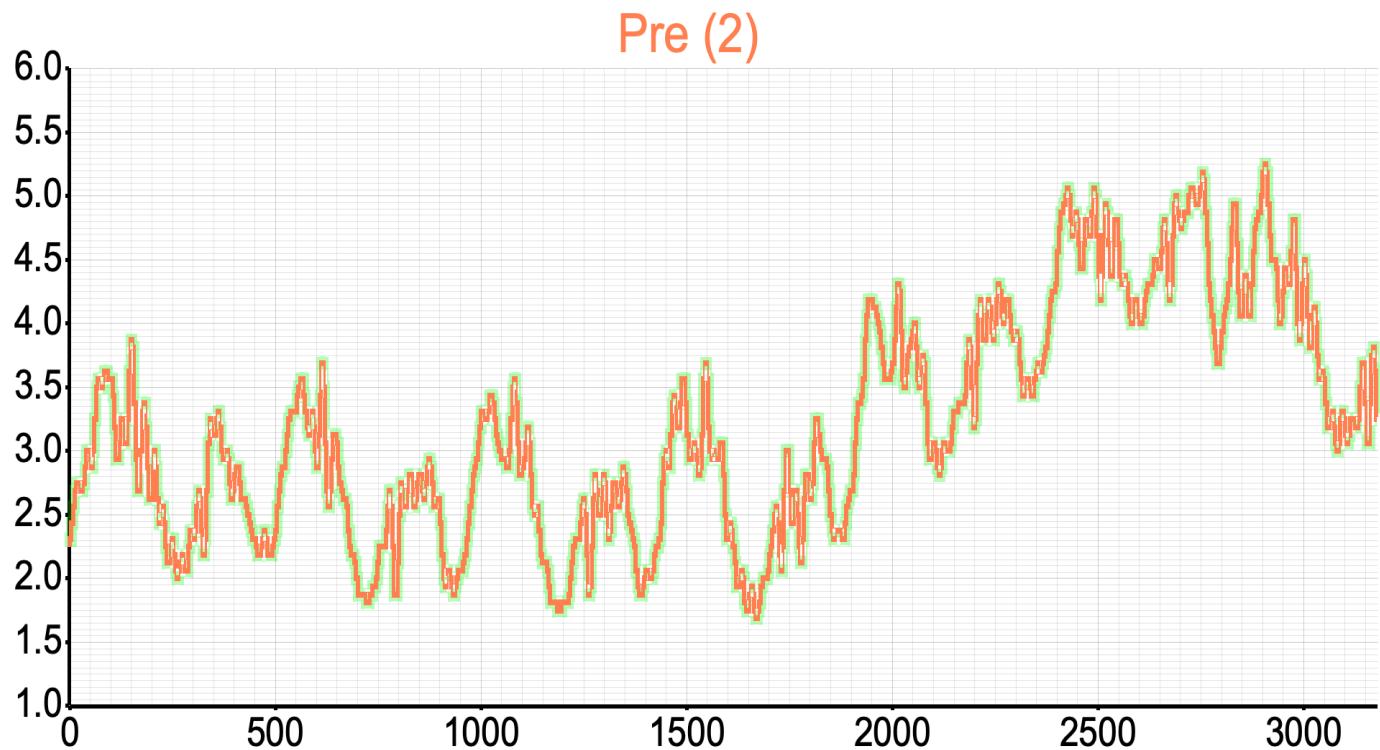
Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	8.2	8.2	3.7	3.7
Cardiac Amp	4.3	4.3	2.6	2.6
High Freq Power	623852.0	623852.0	53718.0	53718.0

Patient Patient 30 - LJ - Sample 1



Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	3.0	3.0	1.4	1.4
Cardiac Amp	3.9	3.9	2.1	2.1
High Freq Power	215776.2	215776.2	106740.9	106740.9

Patient Patient 30 - RJ - Sample 1



Metric	Pre (Raw)	Pre (Cln)	Post (Raw)	Post (Cln)
Mean Pressure	3.2	3.2	1.0	1.0
Cardiac Amp	1.5	1.5	0.7	0.7
High Freq Power	114040.2	114040.2	12430.8	12430.8

Metric Analysis: Mean Pressure (mmHg)

Patient / Vein	Pre-Intervention	Post-Intervention	Change
Patient 1-LJ (#1)	1.81	3.24	1.43
Patient 1-LJ (#2)	0.91	-	
Patient 1-RJ (#1)	1.31	1.39	0.09
Patient 1-RJ (#2)	0.92	-	
Patient 2-LJ (#1)	17.97	18.71	0.75
Patient 2-RJ (#1)	6.32	10.46	4.14
Patient 3-LJ (#1)	14.32	7.03	-7.30
Patient 3-RJ (#1)	9.82	1.07	-8.74
Patient 4-LJ (#1)	10.61	10.77	0.16
Patient 4-RJ (#1)	9.17	12.45	3.27
Patient 5-LJ (#1)	11.81	12.38	0.57
Patient 5-RJ (#1)	8.99	11.09	2.10
Patient 6-LJ (#1)	8.40	5.07	-3.33
Patient 6-LJ (#2)	8.16	-	
Patient 6-RJ (#1)	3.41	7.45	4.04
Patient 6-RJ (#2)	3.12	-	
Patient 7-LJ (#1)	16.35	16.96	0.62
Patient 7-RJ (#1)	16.70	13.84	-2.86
Patient 8-LJ (#1)	2.96	2.62	-0.34
Patient 8-LJ (#2)	2.85	-	
Patient 8-RJ (#1)	7.00	0.92	-6.08
Patient 8-RJ (#2)	9.12	-	
Patient 9-LJ (#1)	13.85	14.74	0.90
Patient 9-LJ (#2)	14.46	-	
Patient 9-RJ (#1)	12.26	13.82	1.57
Patient 9-RJ (#2)	11.99	-	
Patient 10-LJ (#1)	0.51	1.64	1.13
Patient 10-LJ (#2)	0.67	-	
Patient 10-RJ (#1)	-0.40	3.66	4.06
Patient 10-RJ (#2)	2.57	-	
Patient 11-LJ (#1)	21.59	20.23	-1.37
Patient 11-LJ (#2)	21.38	47.21	25.83
Patient 11-RJ (#1)	27.31	23.34	-3.97
Patient 11-RJ (#2)	-	22.78	

Metric Analysis: Max Pressure (mmHg)

Patient / Vein	Pre-Intervention	Post-Intervention	Change
Patient 1-LJ (#1)	4.88	6.25	1.38
Patient 1-LJ (#2)	3.06	-	
Patient 1-RJ (#1)	4.38	6.06	1.69
Patient 1-RJ (#2)	3.56	-	
Patient 2-LJ (#1)	27.12	22.94	-4.19
Patient 2-RJ (#1)	16.19	16.56	0.38
Patient 3-LJ (#1)	15.94	10.75	-5.19
Patient 3-RJ (#1)	10.75	1.50	-9.25
Patient 4-LJ (#1)	15.62	13.12	-2.50
Patient 4-RJ (#1)	11.62	18.06	6.44
Patient 5-LJ (#1)	17.00	15.00	-2.00
Patient 5-RJ (#1)	13.38	16.12	2.75
Patient 6-LJ (#1)	11.62	8.38	-3.25
Patient 6-LJ (#2)	11.69	-	
Patient 6-RJ (#1)	6.69	11.12	4.44
Patient 6-RJ (#2)	6.56	-	
Patient 7-LJ (#1)	18.69	18.06	-0.62
Patient 7-RJ (#1)	20.88	15.31	-5.56
Patient 8-LJ (#1)	6.12	4.69	-1.44
Patient 8-LJ (#2)	6.25	-	
Patient 8-RJ (#1)	11.44	3.94	-7.50
Patient 8-RJ (#2)	15.44	-	
Patient 9-LJ (#1)	17.75	19.69	1.94
Patient 9-LJ (#2)	20.31	-	
Patient 9-RJ (#1)	16.88	17.69	0.81
Patient 9-RJ (#2)	16.62	-	
Patient 10-LJ (#1)	2.75	2.69	-0.06
Patient 10-LJ (#2)	4.19	-	
Patient 10-RJ (#1)	1.94	4.38	2.44
Patient 10-RJ (#2)	3.06	-	
Patient 11-LJ (#1)	25.56	23.69	-1.88
Patient 11-LJ (#2)	26.06	47.44	21.38
Patient 11-RJ (#1)	29.75	26.75	-3.00
Patient 11-RJ (#2)	-	26.75	

Metric Analysis: Min Pressure (mmHg)

Patient / Vein	Pre-Intervention	Post-Intervention	Change
Patient 1-LJ (#1)	0.12	0.56	0.44
Patient 1-LJ (#2)	-0.75	-	
Patient 1-RJ (#1)	-0.62	-2.81	-2.19
Patient 1-RJ (#2)	-0.88	-	
Patient 2-LJ (#1)	7.44	14.19	6.75
Patient 2-RJ (#1)	-1.88	4.44	6.31
Patient 3-LJ (#1)	12.81	3.00	-9.81
Patient 3-RJ (#1)	8.88	0.44	-8.44
Patient 4-LJ (#1)	7.00	7.94	0.94
Patient 4-RJ (#1)	7.25	3.00	-4.25
Patient 5-LJ (#1)	7.50	8.94	1.44
Patient 5-RJ (#1)	4.88	4.88	0.00
Patient 6-LJ (#1)	6.44	3.50	-2.94
Patient 6-LJ (#2)	6.69	-	
Patient 6-RJ (#1)	1.25	4.94	3.69
Patient 6-RJ (#2)	0.88	-	
Patient 7-LJ (#1)	12.56	14.50	1.94
Patient 7-RJ (#1)	13.00	11.88	-1.12
Patient 8-LJ (#1)	-0.44	0.25	0.69
Patient 8-LJ (#2)	0.38	-	
Patient 8-RJ (#1)	3.81	-2.62	-6.44
Patient 8-RJ (#2)	5.06	-	
Patient 9-LJ (#1)	9.62	10.00	0.38
Patient 9-LJ (#2)	9.00	-	
Patient 9-RJ (#1)	8.56	10.50	1.94
Patient 9-RJ (#2)	7.88	-	
Patient 10-LJ (#1)	-0.75	0.81	1.56
Patient 10-LJ (#2)	-1.12	-	
Patient 10-RJ (#1)	-1.75	2.94	4.69
Patient 10-RJ (#2)	2.12	-	
Patient 11-LJ (#1)	18.62	17.06	-1.56
Patient 11-LJ (#2)	18.12	46.94	28.81
Patient 11-RJ (#1)	25.62	20.31	-5.31
Patient 11-RJ (#2)	-	18.50	

Metric Analysis: Pressure Range (Max-Min)

Patient / Vein	Pre-Intervention	Post-Intervention	Change
Patient 1-LJ (#1)	4.75	5.69	0.94
Patient 1-LJ (#2)	3.81	-	
Patient 1-RJ (#1)	5.00	8.88	3.88
Patient 1-RJ (#2)	4.44	-	
Patient 2-LJ (#1)	19.69	8.75	-10.94
Patient 2-RJ (#1)	18.06	12.12	-5.94
Patient 3-LJ (#1)	3.12	7.75	4.62
Patient 3-RJ (#1)	1.88	1.06	-0.81
Patient 4-LJ (#1)	8.62	5.19	-3.44
Patient 4-RJ (#1)	4.38	15.06	10.69
Patient 5-LJ (#1)	9.50	6.06	-3.44
Patient 5-RJ (#1)	8.50	11.25	2.75
Patient 6-LJ (#1)	5.19	4.88	-0.31
Patient 6-LJ (#2)	5.00	-	
Patient 6-RJ (#1)	5.44	6.19	0.75
Patient 6-RJ (#2)	5.69	-	
Patient 7-LJ (#1)	6.12	3.56	-2.56
Patient 7-RJ (#1)	7.88	3.44	-4.44
Patient 8-LJ (#1)	6.56	4.44	-2.12
Patient 8-LJ (#2)	5.88	-	
Patient 8-RJ (#1)	7.62	6.56	-1.06
Patient 8-RJ (#2)	10.38	-	
Patient 9-LJ (#1)	8.12	9.69	1.56
Patient 9-LJ (#2)	11.31	-	
Patient 9-RJ (#1)	8.31	7.19	-1.12
Patient 9-RJ (#2)	8.75	-	
Patient 10-LJ (#1)	3.50	1.88	-1.62
Patient 10-LJ (#2)	5.31	-	
Patient 10-RJ (#1)	3.69	1.44	-2.25
Patient 10-RJ (#2)	0.94	-	
Patient 11-LJ (#1)	6.94	6.62	-0.31
Patient 11-LJ (#2)	7.94	0.50	-7.44
Patient 11-RJ (#1)	4.12	6.44	2.31
Patient 11-RJ (#2)	-	8.25	

Metric Analysis: Cardiac Amplitude (mmHg)

Patient / Vein	Pre-Intervention	Post-Intervention	Change
Patient 1-LJ (#1)	3.09	4.06	0.97
Patient 1-LJ (#2)	2.23	-	
Patient 1-RJ (#1)	2.99	6.48	3.49
Patient 1-RJ (#2)	2.27	-	
Patient 2-LJ (#1)	8.76	3.32	-5.44
Patient 2-RJ (#1)	3.97	2.16	-1.82
Patient 3-LJ (#1)	2.37	5.99	3.62
Patient 3-RJ (#1)	1.73	0.81	-0.92
Patient 4-LJ (#1)	3.61	3.24	-0.37
Patient 4-RJ (#1)	3.42	8.28	4.86
Patient 5-LJ (#1)	5.82	3.16	-2.67
Patient 5-RJ (#1)	5.32	7.96	2.65
Patient 6-LJ (#1)	3.94	3.17	-0.77
Patient 6-LJ (#2)	3.69	-	
Patient 6-RJ (#1)	3.68	4.49	0.81
Patient 6-RJ (#2)	3.72	-	
Patient 7-LJ (#1)	3.62	0.98	-2.65
Patient 7-RJ (#1)	5.33	1.16	-4.17
Patient 8-LJ (#1)	4.74	2.15	-2.60
Patient 8-LJ (#2)	3.94	-	
Patient 8-RJ (#1)	5.50	3.17	-2.33
Patient 8-RJ (#2)	8.20	-	
Patient 9-LJ (#1)	2.37	3.31	0.94
Patient 9-LJ (#2)	4.35	-	
Patient 9-RJ (#1)	3.79	2.45	-1.33
Patient 9-RJ (#2)	3.82	-	
Patient 10-LJ (#1)	2.27	0.99	-1.28
Patient 10-LJ (#2)	3.92	-	
Patient 10-RJ (#1)	2.72	0.89	-1.83
Patient 10-RJ (#2)	0.24	-	
Patient 11-LJ (#1)	4.96	4.03	-0.93
Patient 11-LJ (#2)	5.47	0.36	-5.12
Patient 11-RJ (#1)	3.96	4.69	0.72
Patient 11-RJ (#2)	-	6.02	

Metric Analysis: High-Frequency Power

Patient / Vein	Pre-Intervention	Post-Intervention	Change
Patient 1-LJ (#1)	8141.90	16094.50	7952.60
Patient 1-LJ (#2)	25515.51	-	
Patient 1-RJ (#1)	75871.78	116635.56	40763.78
Patient 1-RJ (#2)	89875.78	-	
Patient 2-LJ (#1)	457035.36	24444.04	-432591.32
Patient 2-RJ (#1)	232078.88	30643.15	-201435.73
Patient 3-LJ (#1)	191134.48	212060.00	20925.53
Patient 3-RJ (#1)	54064.10	25567.71	-28496.39
Patient 4-LJ (#1)	492820.79	30420.68	-462400.11
Patient 4-RJ (#1)	133234.53	44634.19	-88600.34
Patient 5-LJ (#1)	818967.52	23065.33	-795902.19
Patient 5-RJ (#1)	78039.76	341802.95	263763.19
Patient 6-LJ (#1)	387514.55	100483.04	-287031.51
Patient 6-LJ (#2)	449538.03	-	
Patient 6-RJ (#1)	148506.89	78555.90	-69951.00
Patient 6-RJ (#2)	228698.10	-	
Patient 7-LJ (#1)	2567840.73	115755.43	-2452085.31
Patient 7-RJ (#1)	1458089.85	46386.79	-1411703.06
Patient 8-LJ (#1)	182657.44	31416.76	-151240.68
Patient 8-LJ (#2)	506150.33	-	
Patient 8-RJ (#1)	405375.62	34955.14	-370420.48
Patient 8-RJ (#2)	1012857.23	-	
Patient 9-LJ (#1)	2599864.48	278014.76	-2321849.72
Patient 9-LJ (#2)	7471904.94	-	
Patient 9-RJ (#1)	810262.39	173145.40	-637116.99
Patient 9-RJ (#2)	230849.90	-	
Patient 10-LJ (#1)	9057.34	10247.57	1190.23
Patient 10-LJ (#2)	27775.84	-	
Patient 10-RJ (#1)	126383.03	47980.90	-78402.12
Patient 10-RJ (#2)	4527.33	-	
Patient 11-LJ (#1)	1325693.71	129790.52	-1195903.19
Patient 11-LJ (#2)	782969.88	12417.44	-770552.44
Patient 11-RJ (#1)	405059.85	258863.37	-146196.48
Patient 11-RJ (#2)	-	669091.17	