Supplemental Material

Table S1. Comparison of heart rate and HRV post-dialysis in a regular dialytic (every other day) cycle, after two-day long interdialytic interval, and after missed dialysis for more than 72 hours.

HRV measure	Post-dialysis in a regular dialytic cycle N=350; n=26 T=13.5	Post-dialysis after the long interdialytic weekend N=122; n=21 T=5.8	Within ANOVA P Compared to phase 2 after the regular vs. weekend-long interdialytic interval	Post-dialysis after missed dialysis > 72h N=9; n=2 T=4.5	Within ANOVA P Compared to phase 2 after regular vs. ultra-long (>72h) interdialytic interval
Heart rate(within SD), bpm	81.4(7.4)	81.8(7.2)	0.439	71.3(2.8)	0.377
rMSSD(within SD), ms	9.6(3.5)	10.1(3.3)	0.109	11.1(1.8)	0.372
HF power(within SD), s^2	4.0(1.4)	4.3(1.1)	0.081	4.0(0.8)	0.777
LF power(within SD), s^2	3.0(0.8)	3.0(0.8)	0.126	3.3(0.8)	0.788
LF/HF ratio(within SD), %	0.9(0.3)	0.9(0.2)	0.615	1.0(0.4)	0.583
Poincaré SD_1(within SD), ms	6.8(2.5)	7.1(2.3)	0.109	7.9(1.3)	0.372
Poincaré SD_2(within SD), ms	22.2(12.4)	19.7(8.1)	0.401	27.1(6.9)	0.869
SD_{12} (within SD), %	0.41(0.16)	0.45(0.15)	0.070	0.33(0.05)	0.820
Sample Entropy(within SD)	1.4(0.4)	1.4(0.3)	0.364	1.6(0.5)	0.990
Renyi Entropy(within SD)	1.3(0.3)	1.3(0.2)	0.192	1.6(0.1)	0.451

N=number of observations; n=number of participants; T=average number of hours; SD=standard deviation; SD_1=Poincaré plot standard deviation perpendicular the line of identity; SD_2=Poincaré plot standard deviation along the line of identity.

Table S2. Association of demographic and clinical characteristics with heart rate and short-term HRV in ARCH models, stratified by the type of dialytic cycle.

	Clinical characteristic	Heart rate (95%CI), bpm	P	rMSSD (95%CI), ms	P	SD1 (95%CI), ms	P	HF power(95%CI), s^2	P
Regular dialytic cycle (phases 1-4)	Age, /10y	-2.9(-3.1 to-2.7)	<0.0001	+0.9(0.8-1.0)	<0.0001	+0.7(0.6-0.7)	<0.0001	+0.4(0.3-0.5)	<0.0001
	Female sex	+8.1(7.5-8.6)	<0.0001	+0.7(0.4-0.9)	<0.0001	+0.5(0.3-0.6)	<0.0001	+0.05(-0.07-0.17)	0.437
	Black race	+23(-388-433)	0.927	-2(-21 to 17)	0.825	-2(-15 to 12)	0.824	-7(-21 to 6)	0.301
	CAD	+4.5(3.8-5.3)	<0.0001	+0.03(-0.3 to 0.4)	0.849	+0.02(-0.2 to 0.3)	0.846	-2.1(-2.2 to -1.9)	<0.0001
	CVD	+6.8(6.1-7.5)	<0.0001	-2.7(-3.1 to -2.4)	<0.0001	-1.9(-2.2 to -1.7)	<0.0001	-0.5(-0.7 to -0.3)	<0.0001
	CHF	+2.3(1.5-3.1)	<0.0001	-2.4(-2.7 to -2.0)	<0.0001	-1.7(-1.9 to -1.4)	<0.0001	+1.4(1.2-1.6)	<0.0001
	AF history	-10.5(-11.0 to-10.1)	<0.0001	+5.3(5.1-5.6)	<0.0001	+3.8(3.6-4.0)	<0.0001	+0.6(0.5-0.8)	<0.0001
	Beta-blocker	-10.1(-11.1 to -9.2)	<0.0001	-6.9(-7.5 to -6.4)	<0.0001	-4.9(-5.3 to -4.5)	<0.0001	-1.33(-1.57 to -1.08)	<0.0001
	Diabetes	+1.1(0.6-1.5)	<0.0001	-1.8(-2.0 to -1.5)	<0.0001	-1.3(-1.4 to -1.1)	<0.0001	+1.3(1.2-1.4)	<0.0001
	CCI	+1.2(1.1-1.3)	<0.0001	-0.5(-0.6 to -0.4)	<0.0001-	-0.4(-0.03 to-0.01)	<0.0001	-0.10(-0.13 to -0.07)	<0.0001
	Recovery time, min	+0.04(0.01-0.6)	0.012	-0.03(-0.05 to -0.01)	<0.0001	-0.02(-0.03 to -0.01)	<0.0001	-0.05(-0.06 to -0.04)	<0.0001
2^{nd} day interdialytic extension (phases 5-6)	Age, /10y	-4.0(-4.4 to-3.7)	<0.0001	-0.2(-0.4-0.1)	0.265	-1.0(-0.3 to 0.1)	0.274	+0.3(0.2-0.5)	<0.0001
	Female sex	+3.8(2.8-4.8)	<0.0001	-1.5(-2.1 to -0.8)	<0.0001	-1.0(-1.5 to -0.6)	<0.0001	+0.07(-0.24 to0.38)	0.656
	Black race	-15(-21 to -9))	<0.0001	-8(-13 to -3)	0.003	-5(-9 to -2)	0.004	-7.5(-9.8 to -5.1)	<0.0001
	CAD	-5.3(-6.7 to -4.0)	<0.0001	+0.06(-0.9 to 1.0)	0.906	+0.04(-0.6 to 0.7)	0.903	-2.2(-2.8 to -1.7)	<0.0001
	CVD	+6.1(4.4-7.7)	<0.0001	-1.3(-2.3 to -0.4)	0.007	-0.9(-1.6 to -0.3)	0.006	-0.7(-1.2 to -0.2)	0.004
	CHF	+4.5(2.8-6.2)	<0.0001	-2.2(-3.3 to -1.2)	<0.0001	-1.6(-2.3 to -0.9)	<0.0001	+1.2(0.6-1.8)	<0.0001
	AF history	-2.3(-3.4 to -1.2)	<0.0001	+4.0(3.3-4.7)	<0.0001	+2.8(2.4-3.3)	<0.0001	+1.2(0.9-1.6)	<0.0001
	Beta-blocker	+2.6(0.9-4.2)	0.002	-6.9(-8.5 to -5.4)	<0.0001	-4.9(-6.0 to -3.8)	<0.0001	-1.33(-1.99 to -0.68)	<0.0001
	Diabetes	-2.4(-0.4 to 0.6)	<0.0001	+0.5(-0.2 to 1.1)	0.173	+0.3(-0.1 to 0.8)	0.176	+1.9(1.6-2.2)	<0.0001
	CCI	+0.25(0.05-0.60)	0.100	-0.3(-0.5 to -0.2)	<0.0001	-0.2(-0.3 to -0.1)	<0.0001	-0.05(-0.12 to 0.03)	0.199
	Recovery time, min	-0.23(-0.29 to-0.17)	<0.0001	-0.05(-0.10 to-0.0007)	0.047	-0.03(-0.07 to -0.0002)	0.048	-0.06(-0.08 to -0.04)	<0.0001
Phases 7-8	Age, /10y	-5.3(-5.8 to-4.7)	<0.0001	-0.20(-0.24 to -0.15)	<0.0001	-1.4(-1.7 to -1.0)	<0.0001	+0.5(0.3-0.7)	<0.0001
	Diabetes	-4.8(-6.0 to-3.6)	<0.0001	-1.6(-2.5 to-0.6)	0.001	-1.10(-1.8 to -0.4)	0.001	+2.2(1.8-2.6)	<0.0001
	Recovery time, min	+2.4(2.2-2.6)	<0.0001	+0.4(0.13-0.64)	0.003	+0.3(0.09-0.5)	0.003	+0.3(0.2-0.5)	<0.0001

Table S3. Association of demographic and clinical characteristics with intermediate HRV in ARCH models, stratified by the type of dialytic cycle.

Clinical characteristic		LF power(95%CI), s^2	P	LF/HF ratio (95%CI)	P	SD1/SD2 ratio (95%CI)	P	SD2 (95%CI), ms	P
Regular dialytic cycle (phases 1-4)	Age, /10y	-0.1(-1.0 to -0.04)	<0.0001	-0.08(-0.09 to -0.07)	<0.0001	+0.03(0.03-0.04)	<0.0001	-0.14(-0.17 to -0.11)	<0.0001
	Female sex	+0.17(0.10-0.24)	<0.0001	-0.05(-0.07 to -0.02)	<0.0001	+0.02(0.01-0.04)	<0.0001	-0.3(-0.9 to 0.2)	0.190
	Black race	+3.3(1.0-5.7)	0.005	+2.5(-1.2 to 6.2)	0.182	-0.9(-2.3-0.4)	0.177	+32(-121 to 187)	0.678
	CAD	+0.6(0.5-0.7)	<0.0001	+0.64(0.61-0.68)	<0.0001	-0.2(-0.2 to-0.21)	<0.0001	+7.0(5.9-8.1)	<0.0001
	CVD	-0.15(-0.26 to -0.05)	0.005	-0.05(-0.08 to -0.01)	0.009	-0.03(-0.05 to-0.01)	0.002	-1.8(-2.6 to -1.0)	<0.0001
	CHF	-0.62(-0.74 to -0.50)	<0.0001	-0.52(-0.56 to -0.48)	<0.0001	+0.19(0.17-0.21)	<0.0001	-3.1(-4.3 to -1.9)	<0.0001
	AF history	-0.07(-0.15 to 0.01)	0.102	-0.23(-0.26 to -0.21)	<0.0001	+0.03(0.02-0.05)	<0.0001	+5.3(4.7-5.9)	<0.0001
	Beta-blocker	-0.02(-1.17 to 0.14)	0.810	+0.34(0.30-0.39)	<0.0001	-0.05(-0.08 to -0.03)	<0.0001	+6.4(5.0-7.7)	<0.0001
	Diabetes	-0.59(-0.67 to -0.52)	<0.0001	-0.40(-0.42 to -0.38)	<0.0001	0.20(0.19-0.22)	<0.0001	-19.4(-20.1 to -18.7)	<0.0001
	CCI	+0.02(0.01-0.04)	0.011	+0.05(0.04-0.05)	<0.0001	-0.01(-0.01to-0.01)	<0.0001	-0.9(-1.0 to -0.7)	<0.0001
	Recovery time, min	+0.03(0.02-0.03)	<0.0001	+0.021(0.019-0.22)	<0.0001	-0.01(-0.01to-0.01)	<0.0001	+0.32(0.29-0.35)	<0.0001
2nd day interdialytic extension (phases 5-6)	Age, /10y	+0.04(-0.03-0.1)	0.265	-0.06(-0.08 to-0.03)	<0.0001	+0.01(-0.004-0.03)	0.139	-1.0(-2.0 to -1.0)	<0.0001
	Female sex	+0.13(-0.05 to 0.31)	0.170	-0.03(-0.10 to 0.03)	0.296	+0.03(-0.008-0.06)	0.133	-1.3(-2.7 to 0.5)	0.058
	Black race	+3.0(1.5-4.5)	<0.0001	+1.8(1.4-2.2)	<0.0001	-1.0(-1.3 to -0.7)	<0.0001	+37(26-47)	<0.0001
	CAD	+0.5(0.2-0.7)	<0.0001	+0.51(0.43-0.59)	<0.0001	-0.2(-0.3 to -0.2)	<0.0001	+8.2(6.0-10.5)	<0.0001
	CVD	-0.4(-0.7 to -0.2)	0.001	+0.001(-0.09-0.10)	0.983	-0.03(-0.1-0.04)	0.426	-3.4(-6.1 to -0.7)	0.015
	CHF	-0.7(-1.0 to -0.4)	<0.0001	-0.32(-0.42 to -0.22)	<0.0001	+0.19(0.12-0.25)	<0.0001	-4.5(-7.2 to -1.8)	0.001
	AF history	-0.2(-0.4 to -0.02)	0.027	-0.2(-0.3 to -0.1)	<0.0001	+0.07(0.03-0.12)	0.001	+4.5(2.3-6.7)	<0.0001
	Beta-blocker	-0.20(-0.55 to 0.14)	0.247	+0.27(0.16-0.39)	<0.0001	-0.12(-0.21 to -0.04)	0.004	-0.1(-0.2 to -0.8)	<0.0001
	Diabetes	-0.7(-0.9 to -0.6)	<0.0001	-0.5(-0.6 to -0.4)	<0.0001	+0.22(0.18-0.26)	<0.0001	-20(-22 to -19)	<0.0001
	CCI	+0.03(0.02-0.05)	0.276	+0.02(0.01-0.04)	<0.0001	-0.004(-0.1-0.01)	0.930	-0.6(-1.1 to -0.2)	0.009
	Recovery time, min	+0.03(0.02-0.05)	<0.0001	+0.02(0.01-0.02)	<0.0001	-0.008(-0.01 to-0.005)	<0.0001	+0.4(0.3-0.5)	<0.0001
Phases 7-8	Age, /10y	+0.2(0.1-0.3)	0.001	-0.01(-0.10-0.03)	0.740	-0.02(-0.05 to -0.001)	0.041	-0.8(-2.0 to 0.1)	0.100
	Diabetes	-1.4(-1.6 to-1.2)	<0.0001	-0.47(-0.53 to -0.41)	<0.0001	+0.43(0.39-0.47)	<0.0001	-14.6(-16.0 to -13.3)	<0.0001
	Recovery time, min	+0.11(0.06-0.16)	<0.0001-	-0.08(-0.09 to-0.06)	<0.0001	+0.03(0.02-0.04)	<0.0001	-4.3(-4.7 to -3.8)	<0.0001

Table S4. Association of demographic and clinical characteristics with entropy in ARCH models, stratified by the type of dialytic cycle

	Clinical characteristic	Sample entropy (95%CI), bpm	P	Renyi entropy (95%CI), ms	P
Regular dialytic cycle (phases 1-4)	Age, per 10y	+0.06(0.05-0.08)	<0.0001	-0.007(-0.02 to 0.003)	0.189
	Female sex	+0.08(0.05-0.11)	<0.0001	-0.03(-0.06 to -0.001)	0.006
	Black race	+0.3(-0.6 to 1.2)	0.530	-0.19(-0.43 to 0.06)	0.138
	CAD	+0.0004(-0.05 to 0.05)	0.988	+0.0005(-0.03 to 0.03)	0.974
	CVD	-0.18(-0.23 to -0.14)	<0.0001	+0.0001(-0.03 to 0.03)	0.992
	CHF	+0.01(-0.04 to 0.06)	0.709	+0.02(-0.02 to 0.06)	0.244
	AF history	+0.11(0.07-0.14)	<0.0001	+0.09(0.06-0.12)	<0.0001
	Beta-blocker	-0.13(-0.20 to -0.07)	<0.0001	+0.02(-0.03 to 0.07)	0.469
	Diabetes	-0.10(-0.13 to -0.07)	<0.0001	-0.07(-0.09 to -0.04)	<0.0001
	CCI	-0.002(-0.01 to 0.005)	0.567	-0.006(-0.01 to 0.0001)	0.052
	Recovery time, min	+0.002(-0.0001 to 0.004)	0.051	-0.003(-0.005 to -0.001)	<0.0001
2nd day interdialytic extension (phases 5-6)	Age, per 10y	+0.05(0.02-0.09)	<0.0001	-0.003(-0.003 to 0.02)	0.832
	Female sex	-0.01(-0.06 to 0.09)	0.713	-0.06(-0.11 to -0.001)	0.045
	Black race	+0.4(-0.2 to 1.0)	0.200	+0.03(-0.4 to 0.4)	0.914
	CAD	+0.13(0.02-0.24)	0.017	+0.09(0.005-0.18)	0.037
	CVD	-0.24(-0.36 to -0.13)	<0.0001	-0.10(-0.18 to -0.02)	0.018
	CHF	-0.15(-0.28 to -0.02)	0.022	-0.05(-0.02 to 0.05)	0.295
	AF history	+0.06(-0.03 to 0.14)	0.193	+0.11(0.04-0.17)	0.001
	Beta-blocker	-0.17(-0.32 to -0.03)	0.016	+0.07(-0.05 to 0.18)	0.275
	Diabetes	+0.02(-0.06 to 0.09)	0.653	-0.08(-0.13 to -0.02)	0.009
	CCI	+0.01(-0.002 to 0.1)	0.090	-0.01(-0.02 to 0.004)	0.151
	Recovery time, min	+0.005(-0.0002 to 0.10)	0.062	-0.001(-0.005 to 0.003)	0.733
Phases 7-8	Age, per 1y	-0.003(-0.008 to 0.003)	0.360	+0.03(-0.008 to 0.07)	0.116
	Diabetes	-0.51(-0.61 to -0.42)	<0.0001	-0.16(-0.23 to -0.08)	<0.0001
	Recovery time, min	+0.11(0.09-0.14)	<0.0001	+0.006(-0.002 to 0.01)	0.126

Table S5. Comparison of circadian rhythm in heart rate and HRV during different interdialytic phases.

	Regular interdialytic interval (phases 3-4)				2nd day of a long interdialytic interval (phases 5-6)				Nonadherent interdialytic extension (phases 7-8)			
HR / HRV metric	Mesor (95%CI)	24-hour Amplitude (95%CI)	Peak time (95%CI)	P Sin Cos	Mesor (95%CI)	24-hour Amplitude (95%CI)	Peak time (95%CI)	P Sin Cos	Mesor (95%CI)	24-hour Amplitude (95%CI)	Peak time (95%CI)	P Sin Cos
HR, bpm	75.4(74.6-76.3)	6.8(5.6-8.6)	07:44(06:52 - 08:14)	<0.0001	74.8(72.9-76.7)	6.9(5.2-11.1)	07:30(06:08-10:44)	0.008 0.020	73.7(71.9-75.6)	8.3(3.4-13.4)	15:30(14:15-15:48)	0.006 <0.0001
rMSSD, ms	10.6(0.9-11.2)	1.5(1.0-3.1)	02:01(20:22-03:16)	0.342 <0.0001	NS	NS	NS	0.067 0.182	8.7(7.2-10.2)	6.8(2.7-10.9)	05:05(04:47-06:18)	0.001 0.085
HF, s^2	4.6(4.5-4.8)	1.0(0.6-1.5)	17:28(17:04-18:23)	<0.0001 0.166	4.9(4.5-5.3)	1.1(0.2-2.2)	16:54(16:36-22.39)	0.038 0.202	NS	NS	NS	0.604 0.235
LF, s^2	3.2(3.1-3.3)	0.44(0.17-0.72)	16:50(16:38-17:34)	0.001 0.022	NS	NS	NS	0.090 0.163	3.5(3.1-3.8)	1.0(0.1-1.9)	16:16(16:00-16:17)	0.032 0.028
LF/HF	0.82(0.78-0.85)	0.14(0.06-0.24)	05:49(05:11-08:34)	0.003 0.770	NS	NS	NS	0.271 0.246	0.83(0.73-0.93)	0.42(0.14-0.71)	16:31(16:26-16:59)	0.003 0.012
SD_1, ms	7.5(7.1-7.9)	1.1(0.7-2.2)	02:00(20:22-03:15)	0.343 0<0.0001	NS	NS	NS	0.067 0.182	6.2(5.1-7.2)	4.8(1.9-7.8)	05:05(04:47-06:18)	0.001 0.085
SD_2, ms	21.7(20.2-23.2)	6.6(2.9-10.8)	02:58(00:47-03:31)	0.025 <0.0001	18.7(15.0-22.3)	11.7(1.9-21.9)	03:56(01:53-04:06)	0.032 0.007	NS	NS	NS	0.067 0.784
SD_{12}	0.45(0.43-0.47)	0.057(0.008-0.12)	15:54(07:58-16:08)	0.088 0.023	NS	NS	NS	0.112 0.078	NS	NS	NS	0.450 0.789
SamEn	1.37(1.32-1.42)	0.081(0.077-0.204)	02:08(18:41-03:30)	0.478 0.014	NS	NS	NS	0.877 0.825	NS	NS	NS	0.631 0.117
RenEn	1.28(1.25-1.31)	0.11(0.02-0.20)	05:03(04:43-08:31)	0.019 0.195	1.21(1.12-1.30)	0.25(0.08-0.48)	05:28(04:54-10:07)	0.022 0.506	NS	NS	NS	0.420 0.163

NS=non-significant (absent circadian rhythm)

Table S6. Association of phase of dialysis with heart rate and HRV after adjustment for circadian rhythm, clinical characteristics.

	Dialysis & postdialysis (phases 1-2)		Regular interdialytic phases 3-4		2nd day interdialytic extension (phases 5-6)		Nonadherent interdialytic extension (phases 7-8)	
HR / HRV metric	per 24-h remoteness from 1st dialysis hour	P	per 24-h remoteness from 1st dialysis hour	P	per 24-h remoteness from 1st dialysis hour	P	per 24-h remoteness from 1st dialysis hour	P
HR, bpm	-0.76(-0.95 to -0.57)	<0.0001	+0.02(-0.05 to 0.11)	0.495	+0.57(0.26-0.87)	<0.0001	+0.20(-0.17 to 0.57)	0.285
rMSSD, ms	+0.20(0.12-0.29)	<0.0001	-0.05(-0.09 to -0.001)	0.044	-1.41(-1.67 to -1.15)	<0.0001	+0.10(-0.41 to 0.60)	0.710
HF power, s^2	+0.04(-0.002 to 0.09)	0.061	-0.006(-0.03 to 0.02)	0.588	-0.38(-0.50 to -0.25)	<0.0001	+0.24(0.06-0.42)	0.010
LF power, s^2	+0.02(-0.002 to 0.05)	0.073	+0.002(-0.010 to 0.02)	0.703	-0.02(-0.08 to 0.05)	0.639	-0.04(-0.04 to 0.12)	0.322
LF/HF	-0.004(-0.01 to 0.003)	0.246	-0.001(-0.005 to 0.003)	0.504	+0.04(0.01 to 0.06)	0.002	-0.01(-0.03 to 0.01)	0.157
SD_1, ms	+0.14(0.08-0.21)	<0.0001	-0.03(-0.07 to -0.001)	0.043	-1.00(-1.19 to -0.81)	<0.0001	+0.07(-0.29 to 0.42)	0.709
SD_2, ms	-0.04(-0.26 to 0.18)	0.706	+0.27(0.17-0.37)	<0.0001	+0.87(0.37-1.37)	0.001	-0.35(-0.81 to 0.12)	0.148
SD_{12}	-0.003(-0.008 to 0.002)	0.219	-0.0006(-0.003 to 0.002)	0.597	-0.06(-0.07 to -0.05)	<0.0001	+0.02(0.004-0.04)	0.017
SamEn	+0.006(-0.005 to 0.018)	0.287	+0.01(0.005 to 0.02)	<0.0001	+0.007(-0.022 to 0.037)	0.624	-0.005(-0.047 to 0.036)	0.795
RenEn	+0.002(-0.002 to 0.005)	0.345	+0.004(-0.0005 to 0.008)	0.088	+0.02(0.002 to 0.04)	0.030	-0.01(-0.05 to 0.03)	0.764

Table S7. Sensitivity analysis after exclusion of epochs starting in the 2nd half of an hour: Association of the dialytic cycle with HRV.

	Dialysis & postdialysis (phases 1-2)		Regular interdialytic phases 3-4		2nd day interdialytic extension (phases 5-6)		Nonadherent interdialytic extension (phases 7-8)	
HR / HRV metric	per 24-h remoteness from 1st dialysis hour	P	per 24-h remoteness from 1st dialysis hour	P	per 24-h remoteness from 1st dialysis hour	P	per 24-h remoteness from 1st dialysis hour	P
HR, bpm	-0.60(-0.79to -0.41)	<0.0001	+0.02(-0.06 to 0.10)	0.612	+1.1(0.63-1.51)	<0.0001	-0.06(-0.55 to 0.45)	0.828
rMSSD, ms	+0.20(0.10 to 0.30)	<0.0001	-0.07(-0.11 to -0.02)	0.006	-1.51(-1.80 to -1.23)	<0.0001	+0.33(-0.24 to 0.91)	0.257
HF power, s^2	+0.04(-0.008 to 0.09)	0.103	-0.01(-0.03 to 0.01)	0.332	-0.36(-0.50 to -0.23)	<0.0001	+0.26(0.06-0.47)	0.013
LF power, s^2	+0.02(-0.008 – 0.05)	0.176	+0.003(-0.010-0.02)	0.665	+0.04(-0.04 to 0.12)	0.319	+0.07(-0.12 to 0.15)	0.093
LF/HF	-0.006(-0.01 to 0.003)	0.180	-0.002(-0.006 to 0.002)	0.349	+0.05(0.02 to 0.08)	0.001	-0.01(-0.04 to 0.01)	0.377
SD_1, ms	+0.14(0.07-0.21)	<0.0001	-0.05(-0.08 to -0.01)	0.005	-1.07(-1.28 to -0.87)	<0.0001	+0.23(-0.17 to 0.65)	0.257
SD_2, ms	-0.20(-0.43 to 0.04)	0.103	+0.29(0.18-0.39)	<0.0001	+0.52(-0.13-1.18)	0.119	-0.87(-1.62 to -0.12)	0.023
SD_{12}	-0.004(-0.009-0.0009)	0.111	-0.001(-0.004-0.001)	0.275	-0.06(-0.08 to -0.05)	<0.0001	+0.02(0.004-0.04)	0.017
SamEn	+0.003(-0.009-0.02)	0.595	+0.010(0.004-0.015)	0.001	0.006(-0.028 to 0.040)	0.733	+0.01(-0.033 to 0.055)	0.631
RenEn	+0.002(-0.002-0.006)	0.243	+0.004(-0.0003-0.008)	0.069	+0.02(0.002 to 0.04)	0.030	-0.01(-0.05 to 0.03)	0.764

Table S8. Sensitivity analysis adjusted for weight and blood pressure change: Association of the dialytic cycle with HRV (N=7). All 7 participants were on beta-blockers.

	Dialysis & postdialysis (phases 1-2)		Regular interdialytic phases 3-4		2nd day interdialytic extension (phases 5-6)	
HR / HRV metric	per 24-h remoteness from 1st dialysis hour	P	per 24-h remoteness from 1st dialysis hour	P	per 24-h remoteness from 1st dialysis hour	P
HR, bpm	+0.34(-0.03 to 0.70)	0.071	+0.11(-0.08 to 0.29)	0.272	**+0.82(0.44-1.20)**	**<0.0001**
rMSSD, ms	**-0.24(-0.45 to -0.20)**	**0.032**	-0.04(-0.11 to 0.03)	0.233	+0.91(-2.30 to 4.10)	0.581
HF power, s^2	-0.001(-0.04 to 0.04)	0.952	-0.0003(-0.05 to 0.05)	0.992	+0.01(-0.04 to 0.06)	0.612
LF power, s^2	+0.01(-0.03 to 0.06)	0.626	**-0.04(-0.07 to -0.01)**	**0.003**	**-0.03(-0.06 to -0.005)**	**0.022**
LF/HF	-0.004(-0.02 to 0.01)	0.658	-0.007(-0.02 to 0.001)	0.085	-0.008(-0.02 to 0.002)	0.122
SD_1, ms	**-0.17(-0.32 to -0.01)**	**0.032**	-0.03(-0.08 to 0.02)	0.233	+0.65(-1.63 to 2.92)	0.578
SD_2, ms	**-0.80(-1.05 to -0.55)**	**<0.0001**	-0.08(-0.39 to 0.23)	0.619	-1.21(-5.32 to 2.91)	0.565
SD_{12}	+0.002(-0.01 to 0.01)	0.761	+0.0004(-0.0006 to 0.007)	0.903	**-0.22(-0.40 to -0.04)**	**0.015**
SamEn	+0.004(-0.006 to 0.01)	0.441	+0.002(-0.01 to 0.02)	0.798	-0.12(-0.45 to 0.21)	0.461
RenEn	**+0.02(0.007 – 0.03)**	**0.001**	**+0.01(0.002 – 0.02)**	**0.020**	**+0.01(0.001-0.02)**	**0.024**