

Supplementary Materials: Transitioning from Unilateral to Bilateral Upper Limb Tremor Therapy for Parkinson's Disease and Essential Tremor Using Botulinum Toxin: Case Series

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Table S1. Optimization of botulinum toxin type A (BoNT-A) parameters over the two injection treatments in the optimized, original treated limb (right arm) (A) and in the newly treated limb (left arm) (B).

ID	First Transition Injection Cycle (T1) in Original Treated (Right) Limb					Second Transition Injection Cycle (T3) in Original Treated (Right) Limb				
	Wrist Dose	Elbow Dose	Shoulder Dose	Total Dose (U)	# of Muscles	Wrist Dose	Elbow Dose	Shoulder Dose	Total Dose (U)	# of Muscles
1	75	50	100	225	13	75	50	100	225	13
2	25	10	25	60	7	25	10	25	60	7
3	145	40	0	185	8	145	35	0	180	8
4	70	35	50	155	11	60	35	50	145	11
5	60	60	90	210	12	60	60	90	210	12
6	70	45	35	150	11	70	45	35	150	11
7	60	40	0	100	9	55	40	0	95	9
Mean	72.1	40.0	42.9	155.0	10.1	70.0	39.3	42.9	152.1	10.1
SD	36.2	15.5	40.0	59.0	2.2	36.7	15.7	40.0	59.5	2.2

Number (#).

Table S2. Optimization of BoNT-A parameters over the two injection treatments in the newly treated limb (left arm).

ID	First Transition Injection Cycle (T1) in Newly Treated (Left) Limb					Second Transition Injection Cycle (T3) in Newly Treated (Left) Limb				
	Wrist Dose	Elbow Dose	Shoulder Dose	Total Dose (U)	# of Muscles	Wrist Dose	Elbow Dose	Shoulder Dose	Total Dose (U)	# of Muscles
1	65	60	75	200	11	65	60	75	200	11
2	30	30	35	95	10	25	30	35	90	10
3	40	30	35	105	12	40	40	35	115	12
4	55	40	40	135	11	55	50	40	145	11
5	25	30	40	95	10	25	30	40	95	10
6	70	50	80	200	12	70	50	80	200	12
7	40	30	35	105	10	35	30	35	100	10
Mean	46.4	38.6	48.6	133.6	10.9	45.0	41.4	48.6	135.0	10.9
SD	17.3	12.1	19.9	47.3	0.9	18.5	12.1	19.9	48.0	0.9

Number (#).

Table S3. The muscles and BoNT-A dosing parameters over the two injection treatments in the original treated limb (right arm).

ID		1	2	3	4	5	6	7	Mean	SD	Range (Min)	Range (Max)
First Transition Injection Cycle (T1) in Original Treated (Right) Limb	Flexor carpi radialis	5	5	15	20	5	10	5	9.3	6.1	5	20
	Flexor carpi ulnaris	5	5	15	20	10	10	5	10.0	5.8	5	20
	Extensor carpi radialis	10		15	5	10	10	5	9.2	3.8	5	15
	Extensor carpi ulnaris	10		15	5	15	10	5	10.0	4.5	5	15
	Pronator teres	15	5	30	5	10	10	15	12.9	8.6	5	30
	Pronator quadratus	15	5	30	5	10	10	15	12.9	8.6	5	30
	Supinator	15	5	25	10		10	10	12.5	6.9	5	25
	Biceps	20	10	40	15	30	15	20	21.4	10.3	10	40
	Triceps	30			20	30	30	20	26.0	5.5	20	30
	Pectoris major	25	25		25	25	20		24.0	2.2	20	25
	Teres major	25				25	15		21.7	5.8	15	25
	Deltoid	25				20			22.5	3.5	20	25
	Supraspinatus	25			25	20			23.3	2.9	20	25
Second Transition Injection Cycle (T3) in Original Treated (Right) Limb	Flexor carpi radialis	5	5	15	15	5	10	5	8.6	4.8	5	15
	Flexor carpi ulnaris	5	5	15	15	10	10	5	9.3	4.5	5	15
	Extensor carpi radialis	10		15	5	10	10	5	9.2	3.8	5	15
	Extensor carpi ulnaris	10		15	5	15	10	5	10.0	4.5	5	15
	Pronator teres	15	5	30	5	10	10	15	12.9	8.6	5	30
	Pronator quadratus	15	5	30	5	10	10	15	12.9	8.6	5	30
	Supinator	15	5	25	10		10	5	11.7	7.5	5	25
	Biceps	20	10	35	15	30	15	20	20.7	8.9	10	35
	Triceps	30			20	30	30	20	26.0	5.5	20	30
	Pectoris major	25	25		25	25	20		24.0	2.2	20	25
	Teres major	25				25	15		21.7	5.8	15	25
	Deltoid	25				20			22.5	3.5	20	25
	Supraspinatus	25			25	20			23.3	2.9	20	25

Table S4. The muscles and BoNT-A dosing parameters over the two injection treatments in the newly treated limb (left arm).

ID		1	2	3	4	5	6	7	Mean	SD	Range (Min)	Range (Max)
First Transition Injection Cycle (T1) in newly treated (left) limb	Flexor carpi radialis	15	5	5	10		10	10	9.2	3.8	5	15
	Flexor carpi ulnaris	15		5	5		10	5	8.0	4.5	5	15
	Extensor carpi radialis	15	10	5	20	5	20	10	12.1	6.4	5	20
	Extensor carpi ulnaris	15	5	5	15	5	20	5	10.0	6.5	5	20
	Pronator teres		5	5		5	5		5.0	0.0	5	5
	Pronator quadratus		5	5		5	5		5.0	0.0	5	5
	Supinator	5		10	5	5		10	7.0	2.7	5	10
	Biceps	30	15	15	20	15	25	15	19.3	6.1	15	30
	Triceps	30	15	15	20	15	25	15	19.3	6.1	15	30
	Pectoris major	40	20	20	15	20	40	20	25.0	10.4	15	40
	Teres major	15	5	5	5	10	10	5	7.9	3.9	5	15
	Deltoid	10			10		15		11.7	2.9	10	15
	Supraspinatus	10	10	10	10	10	15	10	10.7	1.9	10	15
Second Transition Injection Cycle (T3) in newly treated (left) limb	Flexor carpi radialis	15	5	5	10		10	10	9.2	3.8	5	15
	Flexor carpi ulnaris	15		5	5		10	5	8.0	4.5	5	15
	Extensor carpi radialis	15	5	5	20	5	20	10	11.4	6.9	5	20
	Extensor carpi ulnaris	15	5	5	15	5	20	5	10.0	6.5	5	20
	Pronator teres		5	5		5	5		5.0	0.0	5	5
	Pronator quadratus		5	5		5	5		5.0	0.0	5	5
	Supinator	5		10	5	5		5	6.0	2.2	5	10
	Biceps	30	15	20	25	15	25	15	20.7	6.1	15	30
	Triceps	30	15	20	25	15	25	15	20.7	6.1	15	30
	Pectoris major	40	20	20	15	20	40	20	25.0	10.4	15	40
	Teres major	15	5	5	5	10	10	5	7.9	3.9	5	15
	Deltoid	10			10		15		11.7	2.9	10	15
	Supraspinatus	10	10	10	10	10	15	10	10.7	1.9	10	15