

Supplemental Table 4.1. A Summary of MST Parameters Used In Studies.

	Type of Study	Charac (N; F:M; mean age)	Number of Treatments	Device/ Placement	Dosing (Duration; Frequency)	Anesthetic	ECT	Primary Outcome	Categoric outcome	Side Effects
Lisanby SH, et al. (2001) ¹	CR	20 yo, W	4(+8 RUL ECT)	MSSR; Vtx	6.2x; 40%	Elm; Thp	N/A	HDRS-17: 20 to 6	Rem	None
Kosel M, et al. (2003) ²	CR	66 yo, W	12	MSSR; Vtx	8s; 50Hz	Alf; Etm	N/A	HDRS-21: 33 to 6	Rem	Reorientation n 4.8 min
Lisanby SH, et al. (2003) ³	RCT C-O	10(7:3); 46.7yo	2(+10 ECT)	MSSR; Vtx	6.6s; 60Hz	Mth	N/A	HDRS-24: 27.5 to 9.4	All Substantial improvement	Fewer headaches, muscle aches, and faster reorientation
White PF, et al. (2006) ⁴	OL MST ECT	10(6:4); 48 10(6:4); 49	10-12 10-12	MSSR; N.R.(*1)	8s; 50Hz	Etm	Yes	HDRS-17: 32 to 14 30 to 6	NR	Reorientation 4min 18min
Kirov G, et al. (2008) ⁵	OL C-O	11(8:3)	1(+12 ECT)	MSTh: Vtx or Fz	10s; 100Hz	Etm	N/A	NR	NR	Reorientation 7min vs 26
Kayser S, et al. (2011) ⁶	RCT OL MST ECT	10(6:4); 48.8 10(7:3); 52.8	12 12	MgP:Vtx	10s; 100Hz	Ppf	Yes	MDRS 31.2 to 15.9; 26.3 to 16	60% Res(30% Rem) 40% Res/Rem	Reorientation 2:16'' vs 8':21'' No differences in cognition
Fitzgerald PB, et al. (2013) ⁷	OL	13(10:3); 46	Up to 18	MgP:Vtx	10s; 100Hz	Ppf	No	MDRS 39 to 26	38.5% Res (No Rem)	Reorientation 3min; No evidence of cognitive impairment
Kayser S, et al. (2013) ⁸	OL C-O	7(2:5); 43.4	12	MgP:Vtx	6s; 100Hz	Ppf	Yes	HDRS-28: 29.1 to 25	All non-responders; non-responders to ECT	Reorientation 2 min vs 7 min
Polster JD, et al. (2015) ⁹	OL MST ECT	10(3:7); 43.7 10(6:4); 54.7	12	MgP:Vtx	6s; 100Hz	Ppf	Yes	HDRS-Endpoint NR	NR	Less impact on memory
Soehle M, et al. (2014) ¹⁰	OL MST ECT	10(3:7); 45 10(4:6); 55	NR	MgP:Vtx	6s; 100Hz	Ppf	Yes	NR	NR	Better post-ictal recovery, higher post-ictal BIS values
Noda Y, et al. (2014) ¹¹	CR	18yr; M	18+9	MgP:F3/F4	10s; 100Hz	Mth	No	HDRS-24: 21 to 3	Remitter	Nausea; 4 prolonged seizures
Noda Y, et al. (2014) ¹²	CR	61 yr M & 17 yo W	6:21	MgP:F3/F4	10s; 100Hz	Mth	No	HDRS-24: 27 to 3; 33 to 4	Shift of phase	Induction of mania (1 with psychosis)
Kayser S, et al. (2015) ¹³	OL	26**(12:14); 47	12; up to 22	MgP: Vtx	10s; 100Hz	Ppf	No	HDRS-28: 29 to 14	69% Res; 46% Rem	No cognitive impairment

CR: Case Report; OL: Open-Label; RCT: Randomized Control Trial; C-O: Cross-Over; MSSR: Magstim Super Rapid; MSTh: Magstim Theta; MgP: MagPro MST; Vtx: Vertex; Etm: Etomidate; Mth: Methohexital; Ppf: Propofol; Rmf: Remifentanyl; HDRS (17, 21, 24): Hamilton Depression Rating Scale version 17-, 21-, 24-item; Rem: Remission; Res: Response; NR: Not reported (authors contacted; no response).

* Authors contacted; no reply ; ** 10 Patients are included; already reported in Kayser S, et al 2011

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