

## Supplementary Material

**Article Title:** Measurement-Based Care for Bipolar Disorder: Symptoms and Treatment Changes

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**DOI Number:** <https://doi.org/10.4088/PCC.25br04095>

### **LIST OF SUPPLEMENTARY MATERIAL FOR THE ARTICLE**

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### **DISCLAIMER**

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### Supplement 1. Classification of Medications Prescribed in the Trial

Class	Subclass	Medication
Mood stabilizer		Lithium
	Mood stabilizing anticonvulsant (MSAC)	Carbamazepine
		Lamotrigine
		Topiramate
		Valproate
Antidepressant	Norepinephrine-dopamine reuptake inhibitor (NDRI)	Bupropion
		Bupropion XL
		Methylphenidate
		Methylphenidate XR
	Serotonin-norepinephrine reuptake inhibitor (SNRI)	Duloxetine
		Desvenlafaxine
		Venlafaxine
		Venlafaxine XR
	Selective serotonin reuptake inhibitor (SSRI)	Citalopram
		Escitalopram
		Fluoxetine
		Paroxetine
		Sertraline
	Tricyclic antidepressant (TCA)	Nortriptyline
		Trazodone
Vilazodone		
Antipsychotic	First-generation antipsychotic (FGA)	Haloperidol
	Second-generation antipsychotic (SGA)	Aripiprazole
		Cariprazine
		Lurasidone
		Olanzapine
		Quetiapine
		Ziprasidone
Anticonvulsant		Gabapentin
		Pregabalin
Anxiolytic		Buspirone
		Hydroxyzine
Stimulant		Amphetamine/dextroamphetamine
		Amphetamine/dextroamphetamine XR
		Armodafinil
		Lisdexamfetamine
		Modafinil
Benzodiazepine		Clonazepam

		Lorazepam
Sedative-hypnotic		Zolpidem
Melatonin receptor agonist		Melatonin
		Ramelteon
Dopamine receptor agonist		Pramipexole
Antihypertensive		Prazosin
Antihyperglycemic		Metformin
Antiviral		Amantadine
Mu opioid receptor antagonist		Naltrexone
Beta-blocker		Propranolol

Medication classification was based on several prior reports<sup>12-15</sup>. Medication classes of interest included mood stabilizers, antipsychotics, antidepressants, anxiolytics, and stimulants. Monotherapy was defined as a patient who is taking only one of the following medication classes at a given time: mood stabilizers (including lithium and mood stabilizing anticonvulsants), antipsychotics, or antidepressants. It does not exclude patients who are taking other classes of medications concurrently (e.g. stimulants, anxiolytics, or benzodiazepines). In particular, lithium monotherapy refers to the use of lithium without concomitant use of mood stabilizing anticonvulsants, antipsychotics, or antidepressants. Medication combinations assessed included mood stabilizer & antipsychotic, mood stabilizer & antidepressant, and mood stabilizer & antipsychotic & antidepressant (as mutually exclusive categories)<sup>12</sup>.

## Supplement 2. Baseline Characteristics of Patient Participants

	Overall (N=30)	MBC Group (n=15)	Usual Care Group (n=15)
Age	39.7 (±12.8)	38.0 (±14.3)	41.4 (±11.4)
Ethnicity			
Hispanic/Latina/o/e	1 (3.7%)	1 (7.1%)	0 (0.0%)
Not Hispanic/Latina/o/e	27 (96.4%)	13 (92.9%)	14 (100.0%)
Missing	2	1	1
Race			
Asian	1 (3.7%)	1 (7.1%)	0 (0.0%)
White	27 (96.4%)	13 (92.9%)	14 (100.0%)
Missing	2	1	1
Sex			
Female	26 (92.9%)	13 (92.9%)	13 (92.9%)
Male	2 (7.1%)	1 (7.1%)	1 (7.1%)
Missing	2	1	1
Gender			
Woman	24 (85.7%)	13 (92.9%)	11 (78.6%)
Man	1 (3.6%)	0 (0.0%)	1 (7.1%)
Non-binary	3 (10.7%)	1 (7.1%)	2 (14.3%)
Missing	2	1	1
Symptoms			
Depressive (PHQ-9)	12.5 (±5.9)	11.9 (±5.7)	13.1 (±6.2)
Manic (PMQ-9)	8.3 (±5.3)	8.0 (±5.5)	8.6 (±5.3)
Medications (individual)			
Mood stabilizer	22 (73.3%)	11 (73.3%)	11 (73.3%)
Lithium	6 (20.0%)	2 (13.3%)	4 (26.7%)
Mood stabilizing anticonvulsant	17 (56.7%)	9 (60.0%)	8 (53.3%)
Antipsychotic	18 (60.0%)	8 (26.7%)	10 (66.7%)
First-generation antipsychotic	0 (0.0%)	0 (0.0%)	0 (0.0%)
Second-generation antipsychotic	18 (60.0%)	8 (53.3%)	10 (66.7%)
Antidepressant	18 (60.0%)	9 (60.0%)	9 (60.0%)
Anticonvulsant	6 (20.0%)	3 (20.0%)	3 (20.0%)
Anxiolytic	5 (16.7%)	2 (13.3%)	3 (20.0%)
Stimulant	6 (20.0%)	3 (20.0%)	3 (20.0%)
Other	9 (30.0%)	4 (26.7%)	5 (33.3%)
Medication combinations*			
Antidepressant and mood stabilizer	8 (26.7%)	5 (33.3%)	3 (20.0%)
Antipsychotic and mood stabilizer	6 (20.0%)	3 (20.0%)	3 (20.0%)
Antidepressant, mood stabilizer, and antipsychotic	6 (20.0%)	2 (13.3%)	4 (26.7%)

Monotherapy*			
Mood stabilizer only	2 (6.7%)	1 (6.7%)	1 (6.7%)
Lithium only	0 (0.0%)	0 (0.0%)	0 (0.0%)
Antidepressant only	0 (0.0%)	0 (0.0%)	0 (0.0%)
Antipsychotic only	2 (6.7%)	1 (6.7%)	1 (6.7%)

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*MBC = measurement-based care; PHQ-9 = Patient Health Questionnaire-9; PMQ-9 = Patient Mania Questionnaire-9. Mean ( $\pm$ SD) is listed for age and symptom measure scores. For all other characteristics, patients counts and percentages (%) are denoted. PHQ-9 and PMQ-9 scores and baseline medications were obtained from a survey conducted at the start of the trial, not from the initial study visit.*

\*Note that these are not exhaustive lists of all possible medication combinations or monotherapies.

### Supplement 3. Treatment Changes By Visit

	All visits	Visits with Elevated PHQ-9 Only	Visits with Elevated PMQ-9 Only	Visits with Elevated PHQ-9 and PMQ-9
Visits with:				
Any ( $\geq 1$ ) medication change	48 (67.6%)	28 (73.7%)	1 (50.0%)	6 (75.0%)
1 medication change	18 (25.4%)	8 (21.1%)	1 (50.0%)	3 (37.5%)
2+ medication changes	30 (42.3%)	20 (52.6%)	0 (0.0%)	3 (37.5%)
Any psychosocial change	17 (23.9%)	7 (18.4%)	0 (0.0%)	2 (25.0%)
Visits with specific treatment changes:				
Dose increase	22 (31.0%)	16 (42.1%)	0 (0.0%)	2 (25.0%)
Dose decrease	10 (14.3%)	5 (13.2%)	0 (0.0%)	1 (12.5%)
Medication initiation	29 (40.8%)	17 (44.7%)	0 (0.0%)	4 (50.0%)
Medication discontinuation	18 (25.3%)	10 (26.3%)	1 (50.0%)	2 (25.0%)
Psychotherapy initiation	13 (18.3%)	5 (13.2%)	0 (0.0%)	1 (12.5%)
Psychotherapy frequency change	1 (1.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Intensification of psychosocial treatment	3 (4.2%)	2 (5.3%)	0 (0.0%)	1 (12.5%)
Total visits	71	38	2	8

*PHQ-9 = Patient Health Questionnaire-9; PMQ-9 = Patient Mania Questionnaire-9. Symptom measure scores of 10 or higher were considered 'elevated'. Percentages are denoted in parentheses. Note that the columns do not sum to 100%, as multiple treatment changes could occur at any given visit. Six medication changes that were made between visits are not included in this table.*