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Rajaratnam, Kamini; Xiang, Yu-Tao; Tripathi, Adarsh; More Journal of Clinical Psychopharmacology. 37(2):255-259, April 2017.

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Clinical Use of Mood Stabilizers With Antidepressants in Asia

Report From the Research on Asian Psychotropic Prescription Patterns for Antidepressants (REAP-AD) Projects in 2004 and 2013

Kamini Rajaratnam, MBBS, MRCPsych, * Yu-Tao Xiang, MD, PhD,† Adarsh Tripathi, MD,‡ Helen F.K. Chiu, FRCPsych,§ Tian-Mei Si, MD, PhD,// Kok-Yoon Chee, MD,¶ Ajit Avasthi, MD,# Sandeep Grover, MD,# Mian-Yoon Chong, MD, PhD,** Hironori Kuga, MD,†† Shigenobu Kanba, MD, PhD,†† Yan-Ling He, MD,‡‡ Min-Soo Lee, MD, PhD,§§ Shu-Yu Yang, PhD,//// Pichet Udomratn, MD,¶¶ Roy A. Kallivayalil, MD,## Andi J. Tanra, MD,*** Margarita M. Maramis, MD, PhD,†† Winston W. Shen, MD,‡‡‡ Norman Sartorius, MD, PhD,§§§ Ee-Heok Kua, MD,////// Chay-Hoon Tan, MD,¶¶ Rathi Mahendran, MD,////// Naotaka Shinfuku, MD, PhD,### Min Yi Sum, BA (Hons),**** Ross J. Baldessarini, MD,††††‡‡‡‡ and Kang Sim, MD****

Abstract:

Objective: As most reports concerning treatment with combinations of mood stabilizer (MS) with antidepressant (AD) drugs are based in the West, we surveyed characteristics of such cotreatment in 42 sites caring for the mentally ill in 10 Asian countries.

Methods: This cross-sectional, pharmacoepidemiologic study used 2004 and 2013 data from the REAP-AD (Research Study on Asian Psychotropic Prescription Patterns for Antidepressants) to evaluate the rates and doses of MSs given with ADs and associated factors in 4164 psychiatric patients,

From the *Department of General Psychiatry, Institute of Mental Health, Singapore; †Unit of Psychiatry, Faculty of Health Sciences, University of Macau, Macao SAR, China; ‡Department of Psychiatry, King George's Medical University, Chowk, Lucknow, India; §Department of Psychiatry, Chinese University of Hong Kong, Hong Kong; and ||National Clinical Research Center for Mental Disorders & the Key Laboratory of Mental Health, Ministry of Health (Peking University), Peking University Institute of Mental Health (the Sixth Hospital), Beijing, China; ¶Department of Psychiatry & Mental Health, Tunku Abdul Rahman Institute of Neurosciences, Kuala Lumpur Hospital, Kuala Lumpur, Malaysia; #Department of Psychiatry, Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh, India; **Department of Psychiatry, Kaohsiung Chang Gung Memorial Hospital-Kaohsiung Medical Center and School of Medicine, Chang Gung University, Taiwan; ††Department of Neuropsychiatry, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan; ‡‡Department of Psychiatric Epide-miology, Shanghai Mental Health Center, Shanghai, China; §§Department of Psychiatry, College of Medicine, Korea University, Seoul, Korea; IIIIDepartment of Pharmacy, Taipei City Hospital, Taipei, Taiwan; ¶Department of Psychiatry, Faculty of Medicine, Prince of Songkla University, Songkhla, Thailand; ##Department of Psychiatry, Pushpagiri Medical College, Thiruvalla, India; ***Department of Psychiatry, Hasanuddin University Faculty of Medicine, Makassar, Sulawesi Selatan; and †††Dr Soetomo Hospital -Faculty of Medicine, Airlangga University, Jawa Timur, Indonesia; tttppartments of Psychiatry, TMU-Wan Fang Medical Center and School of Medicine, Taipei Medical University, Taiwan; §§§Association for the Improvement of Mental Health Programmes, Geneva, Switzerland; Departments of IIII Psychological Medicine and III Pharmacology, National University of Singapore, Singapore; ###International Center for Medical Research, Kobe University School of Medicine, Kobe, Japan; ****Research Division, Institute of Mental Health, Singapore; ††††International Consortium for Mood & Psychotic Disorder Research, McLean Hospital, Belmont; and ####Department of Psychiatry, Harvard Medical School, Boston, MA. Received May 26, 2016; accepted after revision December 28, 2016.

Reprints: Kang Sim, MD, Institute of Mental Health/Woodbridge Hospital 10,

Buangkok View, Singapore 539747 (e-mail: kang_sim@imh.com.sg). R.J.B. and K.S. are joint senior authors.

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using standard bivariate methods followed by multivariable logistic regression modeling.

Results: Use of MS + AD increased by 104% (5.5% to 11.2%) between 2004 and 2013 and was much more associated with diagnosis of bipolar disorder than major depression or anxiety disorder, as well as with hospitalization > outpatient care, psychiatric > general-medical programs, and young age (all P < 0.001), but not with country, sex, or AD dose.

Conclusions: The findings provide a broad picture of contemporary use of MSs with ADs in Asia, support predictions that such treatment increased in recent years, and was associated with diagnosis of bipolar disorder, treatment in inpatient and psychiatric settings, and younger age.

Key Words: antidepressant, anxiety, bipolar disorder, major depression, mood stabilizer

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edicines with mood-stabilizing properties include carba-M edicines with mood-stating property mazepine, lamotrigine, lithium salts, and sodium valproate. They are used for the treatment of a range of psychiatric disorders, most often major affective disorders, particularly bipolar disorder and sometimes for otherwise treatment-refractory major depressive disorder.¹⁻⁵ Such combination treatments have rarely been evaluated in controlled trials and remain largely empirical, sometimes guided by expert recommendations.^{2,3} Moreover, reports of indications and effects of combining a mood stabilizer (MS) with an antidepressant (AD) are not common, and most have been based on European or North American samples.⁶⁻⁸ Findings from various locations indicate that the use of valproate and lamotrigine has increased in recent years, whereas use of lithium has remained less prevalent but stable.^{9–12} Among rare surveys based in Asia, Song and colleagues¹³ recently found in the Republic of Korea that valproate and lithium were the most commonly used MSs for bipolar disorder patients, together accounting for greater than 70% of MS use. However, specific information on rates and indications for combining MSs with ADs is less available and especially poorly documented for Asian centers.

Examining pharmacoepidemiologic patterns of drug combinations in naturalistic practice over time is useful for several reasons.^{14–16} Notably, it can provide insights into actual prescription patterns, indicate international or regional variance over time, document the extent to which clinicians adhere to expert-recommended treatment guidelines, and can support assessment of clinical and sociological factors that may contribute particular practices and can indicate their benefits and potential risks.

In view of very limited information on current practices in Asian countries regarding combinations of MSs with ADs, we

examined such treatments for association with country, types of treatment settings, clinical diagnosis, and other potentially relevant factors, including potential changes over time. Based on available data and clinical experience, we hypothesized that use of such combination treatment would be largely limited to persons with a diagnosis of bipolar disorder, but with possible differences in types of drug combinations and doses among Asian countries, and in association with the type of clinical setting, and possibly also with patient age and sex. We also tested specifically the hypothesis that such combination treatment has increased over the past decade in Asia.

METHODS

Participants

Study data are from the REAP-AD (Research on Asian Psychotropic Prescription Pattern for Antidepressants) project, a long-standing pharmacoepidemiologic study that currently evaluates AD prescription patterns in psychiatric patients at 42 collaborating sites in 10 Asian countries. Data collection follows the same protocol at each site. To be included, study subjects with any psychiatric disorder were required to be prescribed an AD on the day of surveys involving consecutive patients in various hospital and ambulatory settings. Data recorded included subject age, sex, diagnosis, setting of treatment (outpatient vs inpatient settings, psychiatric vs general medical services, public vs private facilities), and all medicines prescribed and their doses, as prescribed by clinicians responsible for their care. Diagnoses were confirmed by at least 2 research psychiatrists at each site, following International Classification of Diseases: Mental and Behavioral Disorders: Clinical Descriptions and Diagnostic Guidelines, 10th Revision¹⁷ or Diagnostic and Statistical Manual of Mental Disorders, Fourth Revision, Text Revision criteria (American Psychiatric Association, 2000). The study protocol was approved by an institutional ethics review committee at each collaborating site. All participants were fully informed of the aims of the study and provided written or informed consent for anonymous and aggregate reporting of their findings.

Treatments

Names and doses of all medicines given to study participants were recorded. Types of ADs and their approximate imipramineequivalent (IMI-eq) total daily doses are detailed in Appendix Table A1, Supplemental Digital Content 1, http://links.lww.com/ JCP/A420.^{18,19} In addition, we estimated lithium carbonateequivalent (Li-eq) mg/d doses of other agents with moodstabilizing properties (carbamazepine, lamotrigine, and sodium valproate, as well as lithium), as summarized in Appendix Table A2, Supplemental Digital Content 2, http://links.lww.com/JCP/A421.

Statistical Analyses

Data are presented as means \pm SD or with 95% confidence interval (CI). Categorical differences were compared for subjects given an MS + AD or not by contingency tables (χ^2) and continuous measures by analysis-of-variance methods (*t* test). Factors found to be associated with MS + AD treatment in preliminary bivariate analyses were then entered, stepwise in descending order of significance, into multivariable logistic regression modeling to generate odds ratios with CI and controlling for age, sex, and year of sampling. Analyses used commercial statistical software (Statistical Package for the Social Sciences 23 [IBM SPSS Inc, Chicago, III) or Stata 13 (StataCorp, College Station, Tex) with spreadsheets prepared in Excel (Microsoft Corp, Redmond, Wash) and StatView 5 (SAS Institute, Cary, NC).

RESULTS

Subjects

The study sample included 4164 AD-treated subjects (2292 [55.0%] in 2004; 1872 [45.0%] in 2013) from a total of 42 study sites in 10 Asian countries (Table 1). Overall, ages averaged 43.4 years (CI, 43.0–43.8 years), and 2373 subjects (57.0%) were women. Diagnoses ranked overall as follows: unipolar major depressive disorder (46.6%) > anxiety and disorders (39.7%) > bipolar disorder (13.7%). Most subjects were treated as hospital outpatients (68.4%), in public-sector programs (66.2%), and in general medical rather than psychiatric programs (60.5%). All study subjects were treated with ADs, at IMI-eq doses that averaged 124 mg/d (CI, 120–129 mg/d).

MS Treatment

Of the 4164 subjects, 334 (8.0%) also received an MS, use of which ranked as follows: sodium valproate > lithium carbonate > carbamazepine > lamotrigine = combinations with lithium > anticonvulsant combinations (Table 2). Usage of MS with ADs differed highly significantly across countries, but MS doses

Country	Subjects	No. (%) Receiving MS	MS Dose
Thailand	245	44 (18.0)	546 ± 401
Hong Kong	74	9 (12.2)	644 ± 296
Japan	633	77 (12.2)	631 ± 347
Taiwan	476	50 (10.5)	657 ± 372
Indonesia	222	14 (6.3)	309 ± 192
India	272	17 (6.3)	603 ± 259
Republic of Korea	415	26 (6.3)	758 ± 534
Malaysia	133	8 (6.0)	691 ± 477
People's Republic of China	695	38 (5.5)	360 ± 362
Singapore	999	51 (5.1)	582 ± 478
Total/mean	4164	8.0	612 ± 396

Dose is in Li-eq mg/d.

Across countries, MS usage rates varied highly significantly ($\chi^2 = 57.3$, P < 0.0001), but MS doses did not (t = 1.28, P = 0.11).

TABLE 2.	Types of MSs Used With ADs in Asia
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Rate of Use, %
46.7
29.9
10.0
6.22
6.22
0.48

These distributions did not vary significantly by country.

were similar across sites, averaging 612 Li-eq mg/d (CI, 603–621 Li-eq mg/d) (Table 1).

Factors Associated With Use of MSs

Cotreatment with an MS + AD was most strongly associated with diagnosis of bipolar disorder and far less with unipolar major depressive disorder or anxiety disorders (Table 3). There also was a strong association of MS use with younger age, but not with sex. Between 2004 and 2013, such combination treatments increased by 104% (from 5.5% to 11.2%; $P \le 0.0001$). Largest increases were found in Japan and least in the Republic of Korea. Mood stabilizer use with ADs was significantly associated with hospitalization and with treatment in psychiatric settings, but did not differ between publicly and privately funded programs. Finally, there was some trend association between use of MS + AD combinations with higher IMI-eq daily doses of ADs, although doses of MSs were not greater with higher doses of ADs (r = 0.018, slope = +0.096 [CI, -0.49 to +0.67], t = 0.33, P = 0.74).

Multivariate Modeling

Factors found to be associated with MS cotreatment in preliminary bivariate analyses were then entered, stepwise in descending order of preliminary significance, into multiple-variable, logistic regression modeling. In descending order by significance, factors remaining independently and significantly associated with MS use were bipolar disorder diagnosis, inpatient treatment, psychiatric versus general medical service, and younger age (Table 4).

DISCUSSION

Rates of concurrent treatment of psychiatric patients with an MS plus an AD varied markedly among Asian countries: they were highest in Thailand and lowest in Singapore and increased over the past decade. The most frequently used MSs were valproate and lithium, whereas lamotrigine was least common. Not surprisingly, such combination treatment was associated with bipolar disorder, hospitalization, and specialized psychiatric settings, as well as younger age. There was no difference in AD dose with or without an MS, or with MS dose.

The recent secular increase (2013 vs 2004) in use of MS + AD combination treatments found in the present Asian samples accords with earlier studies in Europe,²⁰ as well as in the United Kingdom from 1995–2009.²¹ As expected, concurrent MS use was associated far more with bipolar disorder than with unipolar depression or anxiety disorders.^{22,23} Such practices are in line with current expert treatment guidelines, which recommend routine use of MSs for all phases of bipolar disorder and consideration of their application in the treatment of relatively severe unipolar depression that proves refractory to AD monotherapy, but not for anxiety disorders unassociated with a mood disorder.^{2-4,24–27} However, even in bipolar disorder, there is a notable lack of consensus as to whether adding an AD improves

Given MS	No MS	t Score or χ^2	Р
334 (8.0)	3830 (92.0)	_	
		533	< 0.0001
61.5	38.5		
5.95	94.1		
3.85	96.2		
		28.3	< 0.0001
15.0	85.0		
8.79	91.2		
		13.3	0.0003
13.2	86.8		
9.17	90.8		
41.5 ± 11.5	43.6 ± 12.4	3.35	0.0008
		7.26	< 0.0001
5.50	94.5		
11.2	88.8		
128 ± 74.8	120 ± 79.3	1.98	0.05
		2.51	0.11
46.6	57.4		
53.4	42.6		
		0.32	0.57
11.0	89.0		
10.4	89.6		
	$\begin{array}{r} \text{Given bits} \\ \hline 334 (8.0) \\ \hline 61.5 \\ 5.95 \\ 3.85 \\ \hline 15.0 \\ 8.79 \\ \hline 13.2 \\ 9.17 \\ 41.5 \pm 11.5 \\ \hline 5.50 \\ 11.2 \\ 128 \pm 74.8 \\ \hline 46.6 \\ 53.4 \\ \hline 11.0 \\ 10.4 \end{array}$	Order MISNo MIS334 (8.0)3830 (92.0) 61.5 38.5 5.95 94.1 3.85 96.2 15.0 85.0 8.79 91.2 13.2 86.8 9.17 90.8 41.5 ± 11.5 43.6 ± 12.4 5.50 94.5 11.2 88.8 128 ± 74.8 120 ± 79.3 46.6 57.4 53.4 42.6 11.0 89.0 10.4 89.6	Iteration Iteration Product of χ 334 (8.0) 3830 (92.0) — 533 61.5 38.5 5.95 94.1 533 3.85 96.2 28.3 15.0 85.0 28.3 15.0 85.0 335 9.17 90.8 335 41.5 ± 11.5 43.6 ± 12.4 3.35 11.2 88.8 7.26 5.50 94.5 1.98 128 ± 74.8 120 ± 79.3 1.98 2.51 46.6 57.4 53.4 42.6 0.32 11.0 89.0 0.32

TABLE 3. Comparison of Subjects Treated With ADs With Versus Without an MS in Asia

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TABLE 4. Multivariable Logistic Regression Modeling of Factors
Associated With Use of MSs With ADs in Asia

Factors	Odds Ratio (95% CI)	Р
Bipolar disorder	22.6 (16.4–31.2)	< 0.0001
Inpatient setting	1.69 (1.30-2.19)	< 0.0001
Psychiatric service	1.61 (1.24–2.08)	0.0004
Younger age	1.02 (1.01–1.03)	0.0009
Higher AD dose	1.00 (0.99–1.01)	0.08

Additional factors not associated with use of MSs included sex, year, country, and public versus private setting.

treatment of bipolar depression more than with an MS or atypical antipsychotic, but broader agreement that an MS should be given if an AD is used, particularly in patients with bipolar I disorder.^{2–4,28} Caution in the use of ADs to treat bipolar depression probably is implicit in the lack of unusually high doses of AD when an MS was used.

In the present findings in Asia, concurrent MS + AD treatment was more likely among hospitalized patients and psychiatric rather than general medical settings. These findings probably reflect the relative severity of illnesses for which combination treatments are given and preferential use where there are expertise and experience to support such treatment. This conclusion accords with other findings that patients with bipolar depression tend to have complex illnesses that are not easily treated and often encounter hospitalization and empirical trials of off-label treatments and combinations.²⁹

There are several limitations in this study. The numbers of subjects in total (N = 4164) was substantial, but limited in the face of major international variance in the use of MS + AD combination treatments among the 42 sites involved. Despite the inclusion of 10 Asian countries within this study, it is still not representative of the entire Asian population. The present cross-sectional evaluations would be improved by prospective follow-up of subjects over time to allow for better assessment of implications of associations found with the use of MS + AD treatment, particularly those related to clinical changes over time. In particular, this study was unable to address the important question of whether combination treatments were more effective or less well tolerated than monotherapies with either type of agent alone, and this basic question requires further study.

In conclusion, the present findings provide a broad picture of contemporary usage of MSs with ADs in Asia, encourage future studies adopting and comparing equivalent MS doses, and support the impression that such treatment increased in recent years, as well as supporting expectations that such combination treatment was strongly associated with bipolar disorder diagnoses, treatment in inpatient and psychiatric settings, and younger age.

AUTHOR DISCLOSURE INFORMATION

The authors declare no conflicts of interest.

REFERENCES

- APA (American Psychiatric Association). Practice guideline for the treatment of patients with bipolar disorder (revision). *Am J Psychiatry*. 2002;159:1–S50.
- NICE (UK National Institute for Health and Clinical Excellence). Bipolar disorder: assessment and management [NICE Web site]. 2014. Available at: https://www.nice.org.uk/guidance/cg185?unlid= 6298624292016101718145. Accessed May 21, 2016.

- SMH (Singapore Ministry of Health). Clinical Practice Guidelines for Bipolar Disorder [Ministry of Health Singapore Web site]. 2011. Available at: https://www.moh.gov.sg/content/moh_web/healthprofessionalsportal/ doctors/guidelines/cpg_medical/2011/cpgmed_bipolar_disorder.html. Accessed May 21, 2016.
- Taylor D, Paton C, Kapur S. Maudsley Prescribing Guidelines in Psychiatry. Wiley-Blackwell: Chichester, West Sussex, UK; 2012.
- Yatham LN, Kennedy SH, O'Donovan C. Canadian Network for Mood and Anxiety Treatments (CANMAT) guidelines for the management of patients with bipolar disorder: consensus and controversies. *Bipolar Disord*. 2005; 7:5–69.
- Goldberg JF, Perlis RH, Ghaemi SN, et al. Adjunctive antidepressant use and symptomatic recovery among bipolar depressed patients with concomitant manic symptoms: findings from the STEP-BD. *Am J Psychiatry*. 2007;164:1348–1355.
- Sachs GS, Nierenberg AA, Calabrese JR, et al. Effectiveness of adjunctive antidepressant treatment for bipolar depression. *N Engl J Med.* 2007;356: 1711–1722.
- Viktorin A, Lichtenstein P, Thase ME, et al. The risk of switch to mania in patients with bipolar disorder during treatment with an antidepressant alone and in combination with a mood stabilizer. *Am J Psychiatry*. 2014;171: 1067–1073.
- Chang CM, Wu CS, Huang YW, et al. Utilization of psychopharmacological treatment among patients with newly diagnosed bipolar disorder from 2001 to 2010. *J Clin Psychopharmacol*. 2016;36: 32–44.
- Greil W, Häberle A, Haueis P, et al. Pharmacotherapeutic trends in 2231 psychiatric inpatients with bipolar depression from the International AMSP Project between 1994 and 2009. *J Affect Disord*. 2012;136:534–542.
- Kessing LV, Vradi E, Andersen PK. Nationwide and population-based prescription patterns in bipolar disorder. *Bipolar Disord*. 2016;18:174–182.
- Stephenson CP, Karanges E, McGregor IS. Trends in the utilisation of psychotropic medications in Australia from 2000 to 2011. *Aust N Z J Psychiatry*. 2013;47:74–87.
- Song HR, Kwon YJ, Bahk WM, et al. Current prescription pattern of maintenance treatments for bipolar patients in Korea: a focus on the transition from acute treatments. *Psychiatry Clin Neurosci.* 2016;70:42–50.
- Haeberle A, Greil W, Russmann S, et al. Mono- and combination drug therapies in hospitalized patients with bipolar depression. Data from the European drug surveillance program AMSP. *BMC Psychiatry*. 2012; 12:153.
- Sim K, Yong KH, Chan YH, et al. Adjunctive mood stabilizer treatment for hospitalized schizophrenia patients: Asia psychotropic prescription study (2001–2008). *Int J Neuropsychopharmacol*. 2011;14:1157–1164.
- Ungvari GS, Chow LY, Chiu HF, et al. Modifying psychotropic drug prescription patterns: a follow-up survey. *Psychiatry Clin Neurosci.* 1997; 51:309–314.
- World Health Organization (WHO). International Classification of Diseases: Mental and Behavioral Disorders: Clinical Descriptions and Diagnostic Guidelines, 10th Revision (ICD-10). Geneva, Switzerland: WHO, 1992.
- Baldessarini RJ. Chemotherapy in Psychiatry. New York: Springer Press; 2013.
- Bollini P, Pampallona S, Tibaldi G, et al. Effectiveness of antidepressants. Meta-analysis of dose-effect relationships in randomized clinical trials. *Br J Psychiatry*. 1999;174:297–303.
- Tsiropoulos I, Gichangi A, Andersen M, et al. Trends in utilization of antiepileptic drugs in Denmark. Acta Neurol Scand. 2006;113:405–411.
- Hayes J, Prah P, Nazareth I, et al. Prescribing trends in bipolar disorder: cohort study in the United Kingdom THIN primary care database 1995–2009. *PLoS One*. 2011;6:e28725.

- 22. Hollingworth SA, Eadie MJ. Antiepileptic drugs in Australia: 2002–2007. *Pharmacoepidemiol Drug Saf.* 2010;19:82–89.
- 23. Mackey C. The anticonvulsants market. *Nat Rev Drug Discov.* 2010;9: 265–266.
- de Montigny C. Lithium addition in treatment-resistant depression. Int Clin Psychopharmacol. 1994;9:31–35.
- Goodwin GM, Haddad PM, Ferrier IN, et al. Evidence-based guidelines for treating bipolar disorder: revised third edition recommendations from the British Association for Psychopharmacology. *J Psychopharmacol*. 2016; 30:495–553.
- 26. SMH (Singapore Ministry of Health). Clinical Practice Guidelines for Depression [Ministry of Health Singapore Web site]. 2012. Available at: https://www.moh.gov.sg/content/moh_web/healthprofessionalsportal/

doctors/guidelines/cpg_medical/2012/cpgmed_depression.html. Accessed May 21, 2016.

- Tada M, Uchida H, Mizushima J, et al. Antidepressant dose and treatment response in bipolar depression: reanalysis of the Systematic Treatment Enhancement Program for Bipolar Disorder (STEP-BD) data. *J Psychiatr Res.* 2015;68:151–156.
- Pacchiarotti I, Bond DJ, Baldessarini RJ, et al. The International Society for Bipolar Disorders (ISBD) task force report on antidepressant use in bipolar disorders. *Am J Psychiatry*. 2013;170:1249–1262.
- Nisha A, Sathesh V, Punnoose VP, et al. A comparative study on psycho-socio-demographic and clinical profile of patients with bipolar versus unipolar depression. *Indian J Psychiatry*. 2015;57: 392–396.