

REAP Survey: Development and Performance in Multiple Regions



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Development



<http://www.reap.asia>

Background

1. The Research on Asian Psychotropic Prescription Pattern study (REAP) is an international collaborative research of pharmacoepidemiology among Asian countries with aims to establish database on psychotropic agents.
2. Over the past 20 years, the REAP had conducted 4 studies on antipsychotic prescription pattern in schizophrenic patients (2001, 2004, 2008, 2016), 2 studies on antidepressant (2003, 2013), 1 study on bipolar disorder (2017), and 1 study on mood stabilizers (2018).
3. Utilization trends of psychotropic drugs and factors affecting their prescription pattern, and to provide suggestions for improving clinical treatments.

Methods

1. Inpatients or outpatients prescribed with psychotropic drugs.
2. The ICD 10th Revision, Clinical Modification (ICD-10-CM) will be used as standard diagnosis system.
3. Each location, depending on the population size, will contribute 100 to 300 patients to each survey.
4. Using a survey with standardized procedures, and a progress from paper-and-pencil method to cloud data collection.



REAP Consortium had recruited a total of 18,217 subjects from 15 countries: China, Hong Kong, Japan, Korea, Singapore, Taiwan, Thailand, Bangladesh, Myanmar, Pakistan, Sri Lanka, Vietnam, India, Indonesia, and Malaysia. More than 70% (12,825) of patients were from the first six countries/regions. The fourth research on Asia psychotropic prescription pattern on antipsychotics (REAP-AP4) participated in the 15 countries with the highest number of cases (10,505). On average, more than 200 psychiatrists and nearly 40 hospitals participated in each survey.

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Patients diagnosis with schizophrenia.
2001/07,
2004/07, 2008/10,
2016/03-2016/07

Patients prescribed with antidepressant.
2003/11,
2013/02-2013/06

Patients diagnosis with Bipolar disorder (ICD-10 F31.0-F31.9).
2018/07-2018/10

Patients with mental disorders who use mood stabilizers
2018/05-2019/10

REAP-AP1234
Study subjects and sites

	Patients					Psychiatrists				Hospitals				
	2001	2004	2008	2016	ALL	2001	2004	2008	2016	2001	2004	2008	2016	
	Inpatient	Inpatient	Inpatient	Outpatient	ALL									
China	611	504	409	146	160	3	36	3	24	3	4	3	2	
Hong Kong	108	100	100	31	0	31	1	1	10	11	1	1	1	
Japan	627	583	514	129	100	229	55	77	68	46	10	10	8	
Korea	442	412	284	6	125	131	51	32	31	17	12	4	3	
Singapore	300	91	100	128	43	171	4	10	2	11	1	1	2	
Taiwan	311	446	499	224	179	403	30	48	58	17	4	5	7	
India		181	150	329	479		5	31					5	
Malaysia		100	103	202	305		2	21					1	
Thailand		39	140	182	322		1	51					4	
Bangladesh			48	51	99			4					1	
Myanmar			90	74	164				25				5	
Pakistan			142	156	298				49				3	
Sri Lanka			50	47	97				18				3	
Vietnam			274	0	274				95				10	
Indonesia			289	292	581				66				9	
Total	2399	2136	2226	1950	1794	3744	144	204	180	486	31	25	34	71

REAP-AD 1 & 2
Study subjects and sites

	Patients			Psychiatrists		Hospitals	
	2003	2013	ALL	2003	2013	2003	2013
China	537	350	887		39	5	4
Hong Kong		81	81		17		1
Japan	609	244	853		76	7	6
Korea	293	259	552		4	4	4
Singapore	72	135	207		20	1	2
Taiwan	387	153	540		16	3	4
India		296	296		5		5
Malaysia		161	161		7		6
Thailand		310	310		5		5
Indonesia		296	296		24		3
Total	1897	2258	4155		213	20	40

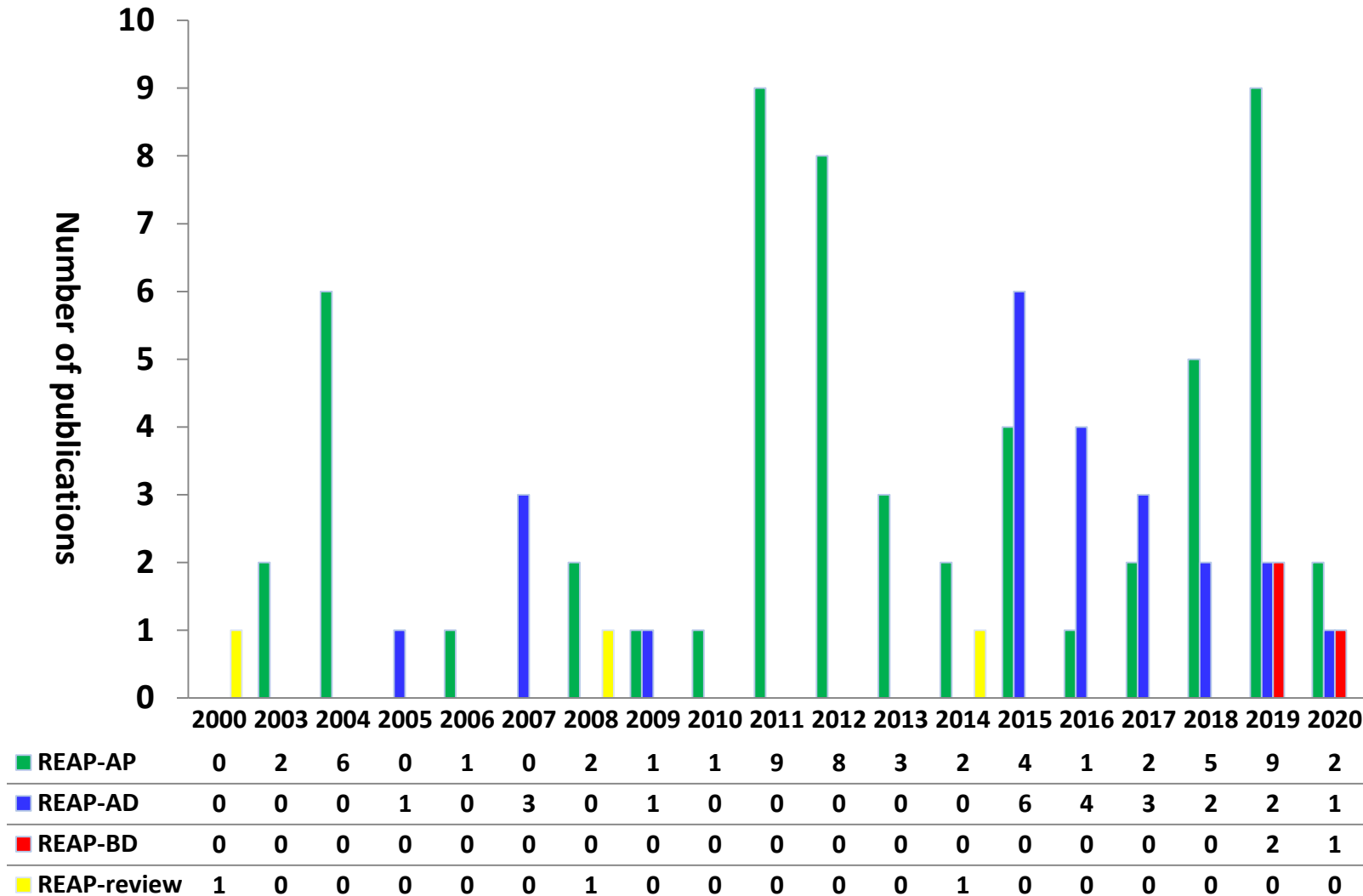
REAP-BD
Study subjects and sites

	Patients			Psychiatrists	Hospitals
	Inpatient	outpatient	ALL		
China	216	105	321	3	3
Hong Kong	0	30	30	1	1
Japan	13	107	120	10	6
Korea	160	248	408	13	8
Singapore	7	29	36	7	1
Taiwan	61	185	246	28	6
India	4	198	202	2	2
Malaysia	14	168	182	14	11
Thailand	5	86	91	23	2
Indonesia	9	72	81	8	2
Myanmar	23	7	30	2	1
Pakistan	78	136	214	10	4
Sri Lanka	5	35	40	3	1
Total	595	1406	2001	48	124

REAP-MS
Study subjects and sites

	Patients			Psychiatrists	Hospitals
	Inpatient	outpatient	ALL		
China	317	222	539	4	3
Hong Kong	0	24	24	1	1
Japan	9	81	90	9	6
Korea	254	394	648	13	8
Singapore	8	65	73	8	1
Taiwan	213	339	552	42	7
India	6	261	267	2	2
Malaysia	173	259	432	28	17
Thailand	15	127	142	29	2
Indonesia	6	99	105	11	2
Myanmar	39	6	45	2	1
Pakistan	83	159	242	10	4
Sri Lanka	0	16	16	3	1
Total	1123	2052	3175	162	55

Performance



As of 2020, REAP research has published 87 articles, of which REAP-AP accounts for nearly 60.

Prescribing pattern of antipsychotics

11 for trend of pattern used, 10 for polypharmacy, 9 for doses, 4 for clozapine, 2 for long-acting drugs.

Prescribing pattern of antidepressants

11 for trend of pattern used.

Concurrent psychotropic drugs used

6 for schizophrenia, 3 for depression.

Adverse effects

6 for adverse effects of antipsychotics.

Prescription patterns for bipolar disorder

2 for trend of pattern used, 1 for polypharmacy and psychotropic drug load.

Discussion & Conclusion

1. There was a wide variety of psychotropic drugs in clinical use for mental disorder in these studies. REAP survey can provide a reference for multinational and cross-center pharmacoepidemiological research.
2. In last 20 years, REAP has succeeded in forming a research network of Asian psychiatric institutions. We have utilized a cloud database for easy access and analysis.
3. Fifteen Asian countries/regions participated in the REAP study and nearly 18,000 patients were recruited. As a result, more than 80 academic journal articles were published locally and internationally, focusing on schizophrenia, depressive symptoms and bipolar disorder prescription models, trends in the use of antipsychotics and antidepressants, combined use of psychotropic drugs, and adverse effects etc.

We hope to use these experiences to encourage new young researchers to join us.

Never stop exploring !

Because you'll never know what wonder journey awaits for you.