

Data Form

REAP 2018---Mood stabilizers

REAP-MS 2018 will focus on the prescription patterns on mood stabilizers (REAP-MS).

Psychiatric patients prescribed with mood stabilizers and their diagnoses are not bipolar disorder on the day of survey will be included.
(Both inpatient and outpatient)

<Inclusion Criterion >

Psychiatric patients prescribed with mood stabilizers

	please choose one or multiple
<input type="checkbox"/>	lithium
<input type="checkbox"/>	valproic acid/valproate/divalproex
<input type="checkbox"/>	carbamazepine
<input type="checkbox"/>	oxcarbazepine/eslicarbazepine
<input type="checkbox"/>	lamotrigine
<input type="checkbox"/>	Other antiepileptics

and their diagnoses are not bipolar disorder

on the day of survey will be included.

(Both inpatient and outpatient)

< Target Dates >

Two months between September 2018 and February 2019

This form is to be completed by a physician in charge of the patient.

Information about the collaborator

Date of Survey: Date, Month, 2018

Country/region:

- 1.China 2.Hong Kong 3.Japan 4.Korea 5.Singapore
- 6.Taiwan 7.India 8.Malaysia 9.Thailand 10.Indonesia
- 11.Bangladesh 12.Myanmar 13.Pakistan 14.Sri Lanka 15.Vietnam
- 16.Philippines

Hospital Name: _____

In-charge Physician Name: _____

Prescribing psychiatrist: 1.Resident 2.Attending (___ years practice)

Patient No: _____

(Please count at each physician's level from the number one)

Patient: 1. Inpatient 2. Outpatient

REAP-MS 2018 DC-Survey

A. Profile of this patient

1. Age: _____ years

2. Sex: 1. Male 2. Female

3. Height: _____ cm; Weight: _____ kg

4. Blood Pressure: Systolic _____ / Diastolic _____ mm Hg

5. for inpatient :

Date of the current admission (y/m/d): / /

First admission: 1. Yes 0. No;

6. for outpatient :

Date of the initiating the current treatment (y/m): /

First treatment: 1. Yes 0. No;

7. Duration of untreated illness (DUI, from the onset until first pharmacotherapy, choose one)

1. Less than 6 months

2. 6 - 12 months

3. 1 year - Less than 5 years

4. More than 5 years

5. No information

DUI: defined as the interval between the onset of a psychiatric disorder and the administration of the first pharmacological treatment

8. Financial status of the patient (Tick all if applicable)

1. Employed (Including family business or self-employed)

2. Supported by family members

3. Supported by the social welfare system of the government

4. Supported by NGO and/or charity

5. Part time job

6. House wife or house husband

7. Homeless or vagrancy

8. Others : Please specify ()

9. Medication coverage (Tick all if applicable)

1. Self-payment: 1-25% 26-50% 51-75% 76-100%

2. Third party: 1. Private insurance 2. Government scheme/insurance

3. Hospital: 1. Free hospital supply 2. Partial hospital supply and partial self-payment

B. Psychiatric diagnoses made by physician in charge

10. Please refer to Table II of supplement, and write down the corresponding ICD-10-CM codes in the table below. In case you are using ICD-9-CM, its codes will be converted to ICD-10-CM at the website <http://www.icd10data.com/Convert/> .

ICD-10-CM code	Check for main diagnosis
<i>For example</i>	
F00	
F32	

C. Physical comorbidities

11. If the patient has any physical comorbidities currently, please refer to Table III of supplement and write down the corresponding codes (01-18) in the table below: 1. Yes 0. No;

code
<i>For example</i>
02
18

D. Targeted Symptoms

Please check the targeted symptoms to prescribe mood stabilizers for this patient (more than one).

12. Manic/hypomanic episode

- 1. Elevated/expansive mood
- 2. Inflated self-esteem/grandiosity
- 3. Over talkativeness/pressure of speech
- 4. Flight of ideas/racing thoughts
- 5. Increased energy/goal directed activities
- 6. Increased risky activities
- 7. Decreased need for sleep

13. Depressive episode

- 1. Prominent depressed mood
- 2. Anhedonia
- 3. Significant weight loss or gain
- 4. Insomnia or hypersomnia
- 5. Psychomotor agitation or retardation
- 6. Loss of energy
- 7. Feelings of worthlessness or guilt
- 8. Decreased concentration/indecisiveness
- 9. Suicidal ideation/attempt

14. Others

- 1. Anger
- 2. Irritability
- 3. Aggressiveness
- 4. Impulsivity
- 5. Disruptiveness
- 6. Severe anxiety
- 7. Autonomous overreactions to stress
- 8. Mood swimming
- 9. Psychotic symptoms
- 10. Others, Please specify _____

E. Course

15. Duration of current episode using mood stabilizers

- 1. Less than 1 months
- 2. 1 - 3 months
- 3. 3 - 6 months
- 4. 6 - 12 months
- 5. More than 1 years
- 6. No information

F. Prescription (*including all medications the day of survey, not including prn or stat use*)

First, select Yes or No for the 5 classes of psychotropic drug mood stabilizer, antipsychotic [including long-acting injection], antidepressant, anxiolytic, and hypnotic, anti-parkinson drug, and other medications.

Use the dropdown to choose a generic compound and fill the dosage per day. There are some default drug names on the dropdown. Use the other+ to key in a drug not available in the default menu.

16. Mood Stabilizers: 1. Yes 0. No;

Please refer to Table I of supplement, and write down the corresponding mood stabilizers in the table below.

If yes, please write down as prescribed, all mood stabilizers on the day of survey, within 24 hours, from 6am to 6am

Drug name	Total dosage per day
<i>e.g. Lithium</i>	900 mg
<i>e.g. Valproic acid</i>	1000 mg

17. Antipsychotics: 1. Yes 0. No;

If yes, please write down as prescribed, all Antipsychotic on the day of survey, within 24 hours, from 6am to 6am

Drug name	Total dosage per day
<i>e.g. Haloperidol</i>	6 mg
<i>e.g. Aripiprazole</i>	15 mg

18. Depot injections: 1. Yes 0. No;

If yes, please write down as prescribed, any depot injections given within past 4 weeks. If patient receives an injection q 2 week, please adjust the dosage to 4 weeks.

Drug name	Total dosage per 4 weeks
<i>e.g. Flupentixol (depot)</i>	20 mg
<i>e.g. Haloperidol (depot)</i>	50 mg

19. Antidepressants: 1. Yes 0. No;

If yes, please write down as prescribed, all Antidepressant on the day of survey, within 24 hours, from 6am to 6am

Drug name	Total dosage per day
<i>e.g. Fluoxetine</i>	20 mg
<i>e.g. Venlafaxine</i>	150 mg

20. Anxiolytics: 1. Yes 0. No;

If yes, please write down as prescribed, all Anxiolytic on the day of survey, within 24 hours, from 6am to 6am

Drug name	Total dosage per day
<i>e.g. Alprazolam</i>	0.5 mg
<i>e.g. Lorazepam</i>	2 mg

21. Hypnotics: 1. Yes 0. No;

If yes, please write down as prescribed, all hypnotic on the day of survey, within 24 hours, from 6am to 6am

Drug name	Total dosage per day
<i>e.g. Estazolam</i>	<i>2 mg</i>
<i>e.g. Triazolam</i>	<i>0.25 mg</i>

22. Anti-parkinson drugs: 1. Yes 0. No;

If yes, please write down as prescribed, all psychotropic medications on the day of survey, within 24 hours, from 6am to 6am

Drug name	Total dosage per day
<i>e.g. Biperiden</i>	<i>2 mg</i>
<i>e.g. Trihexyphenidyl</i>	<i>12 mg</i>

23. Other medications: 1. Yes 0. No;

If yes, please write down as prescribed, all other medications on the day of survey, within 24 hours, from 6am to 6am. Remember to key in the comorbid diagnosis.

Please be aware that if patient receive and antihypertensive medication, remember to key in the diagnosis in the comorbidity section.

Drug name	Total dosage per day	unit
<i>e.g. Amlodipine</i>	<i>5</i>	<i>mg</i>
<i>e.g. Atorvastatin calcium</i>	<i>20</i>	<i>mg</i>

G. Reported adverse events from mood stabilizer (exclude other psychotropic drugs)

25. Evaluation based on (Tick all if applicable)

- 1. patient's self report
- 2. psychiatrist's interview/observation

26. Please tick the reported symptoms ever occurred of the patient of survey.

(a) Cardiac

	symptoms	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No	<input type="checkbox"/> 9. No information
1	Cardiac problems			
2	Others (<i>please specified</i>):			

(b) Cognitive:

	symptoms	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No	<input type="checkbox"/> 9. No information
1	Cognitive problems			
2	Others (<i>please specified</i>):			

(c) Dermatological:

	symptoms	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No	<input type="checkbox"/> 9. No information
1	Acne			
2	Hair Loss			
3	Psoriasis			
4	Others (<i>please specified</i>):			

(d) Endocrinological:

	symptoms	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No	<input type="checkbox"/> 9. No information
1	Hyperthyroidism			
2	Hypothyroidism			
3	Hyperprolactinaemia			
4	PCOS (polycystic ovary syndrome)			
5	Others (<i>please specified</i>):			

(e) Gastrointestinal:

	symptoms	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No	<input type="checkbox"/> 9. No information
1	Diarrhea			
2	Nausea			
3	Pancreatitis			
4	Vomiting			
5	Others (<i>please specified</i>):			

(f) Hematological:

	symptoms	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No	<input type="checkbox"/> 9. No information
1	Aplastic anemia			
2	Leucopenia			
3	Thrombocytopenia-coagulopathy			
4	Others (<i>please specified</i>):			

(g) Hepatological:

	symptoms	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No	<input type="checkbox"/> 9. No information
1	↑ NH ₄ ⁺			
2	↑ Transaminases			
3	Hepatitis			
4	Others (<i>please specified</i>):			

(h) Immunological:

	symptoms	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No	<input type="checkbox"/> 9. No information
1	SLE-like syndrome (SLE-like systemic lupus erythematosus)			
2	Serious rash			
3	Others (<i>please specified</i>):			

(i) Metabolic:

	symptoms	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No	<input type="checkbox"/> 9. No information
1	Metabolic syndrome			
2	Weight gain			
3	Others (<i>please specified</i>):			

(j) Nephrogenic:

	symptoms	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No	<input type="checkbox"/> 9. No information
1	Hyponatremia			
2	Renal failure			
3	Others (<i>please specified</i>):			

(k) Neurological:

	symptoms	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No	<input type="checkbox"/> 9. No information
1	Sedation			
2	Tremor			
3	Unsteady gait			
4	Bradykinesia			
5	Sialorrhea			
6	Rigidity			
7	Akathisia			
8	Dystonia			

	symptoms	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No	<input type="checkbox"/> 9. No information
9	Dyskinesia			
10	Encephalopathy			
11	Others (<i>please specified</i>):			

(l) Sexual:

	symptoms	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No	<input type="checkbox"/> 9. No information
1	Decreased libido			
2	Decreased function			
3	Infertility			
4	Teratogenic			
5	Others (<i>please specified</i>):			

(m) Others (*please specified*):

	symptoms	<input type="checkbox"/> 1. Yes	<input type="checkbox"/> 0. No	<input type="checkbox"/> 9. No information
1				
2				

Reference: Murru A, Popovic D, Pacchiarotti I, Hidalgo D, Leon-Caballero J, Vieta E. Management of adverse effects of mood stabilizers. *Curr Psychiatry Rep.* 2015; 17: 66.

H. Use of psychoactive substance

27. If the patient has regularly used any psychoactive substance currently or in the past (one year before), please tick the corresponding codes in the table below.

	Substance used	<input type="checkbox"/> 1. Yes (Currently)	<input type="checkbox"/> 2. Yes (in the past)	<input type="checkbox"/> 0. No	<input type="checkbox"/> 9. No information
1	Tobacco				
2	Alcohol				
3	Betel nuts				
4	Amphetamine				
5	Other drugs Specify if yes ()				

I. Laboratory data (most recently)

28. Therapeutic drug monitoring of mood stabilizers: skip join

	List	Suggested range	level	Unit	date
1	Lithium	0.4-1.2 mEq/L (mmol/L)		mEq/L	
2	Valproic Acid	50 ~ 100 ug/mL		ug/mL	
3	Carbamazepine	4 ~ 12 ug/mL		ug/mL	
4	Other drugs, Specify if yes ()				

29. Chemistry and CBC: skip join

Lab. list	Suggested normal range	Current data/ date
Glucose AC	70-100 mg/dL	
HbA1C	4.0-6.0%	
GOT	10-39 U/L	
GPT	7-42 U/L	
BUN	7-18mg/dl	
Creatinine	0.7-1.5 mg/dl	
Cholesterol	130-200 mg/dL	
HDL cholesterol	>40 mg/dL	
LDL cholesterol	<130 mg/dL	
Triglyceride	35-200 mg/dL	
TSH	0.3~4.5 IU/ml	
T3	80-200ng/dl	
Free T4	0.93-1.7ng/dL	
Prolactin	4.79-23.3 ng/dl	
Hb	10.8-14.9 g/dL	
W.B.C	3.54-9.06 10 ³ /uL	
Platelet	150-361 10 ³ /uL	
Serum Na+ levels	135-148 mEq/L	
Serum NH4+ levels	19-60 mg/dL	
Other, Specify if yes ()		

J. Clinical Global Improvement

30. In your opinion, how much has the patients changed since the use of mood stabilizers?

- 1. Very much improved
- 2. Much improved
- 3. Minimally improved
- 4. No change
- 5. Minimally worse
- 6. Much worse
- 7. Very much worse

Please do not leave the answers blank. Thank you very much for your kind collaboration.

Supplement:

Table I Mood stabilizers list*

code	generic name
<input type="checkbox"/> 101	lithium
<input type="checkbox"/> 102	valproic acid/valproate/divalproex
<input type="checkbox"/> 103	carbamazepine
<input type="checkbox"/> 104	oxcarbazepine/eslicarbazepine
<input type="checkbox"/> 105	lamotrigine
<i>Other antiepileptics</i>	
<input type="checkbox"/> 106	riluzole
<input type="checkbox"/> 107	topiramate
<input type="checkbox"/> 108	zonisamide
<input type="checkbox"/> 109	gabapentin
<input type="checkbox"/> 110	pregabalin
<input type="checkbox"/> 111	levetiracetam
<input type="checkbox"/> 112	
<input type="checkbox"/> 113	
<input type="checkbox"/> 114	
<input type="checkbox"/> 115	
<input type="checkbox"/> 116	
<input type="checkbox"/> 117	
<input type="checkbox"/> 118	
<input type="checkbox"/> 119	
<input type="checkbox"/> 120	

*Reference: WHO Collaborating Center for Drug Statistic Methodology. *ATC index with DDDs*. WHO collaborating Center for Drug Statistics Methodology. Oslo, 2017

Table II Major psychiatric diagnoses in ICD-10 classification list

<i>F0</i>	<i>Organic, including symptomatic, mental disorders</i>	<i>F1</i>	<i>Mental and behavioral disorders due to psychoactive substance use</i>
<input type="checkbox"/> F00	Dementia in Alzheimer's Disease	<input type="checkbox"/> F10	Mental and Behavioral Disorders Due to Use of Alcohol
<input type="checkbox"/> F01	Vascular Dementia	<input type="checkbox"/> F11	Mental and Behavioral Disorders Due to Use of Opioids
<input type="checkbox"/> F02	Dementia in Other Diseases Classified Elsewhere	<input type="checkbox"/> F12	Mental and Behavioral Disorders Due to Use of Cannabinoids
<input type="checkbox"/> F03	Unspecified Dementia	<input type="checkbox"/> F13	Mental and Behavioral Disorders Due to Use of Sedatives and Hypnotics
<input type="checkbox"/> F04	Organic Amnesic Syndrome, Not included by Alcohol and Other Psychoactive Substances	<input type="checkbox"/> F14	Mental and Behavioral Disorders Due to Use of Cocaine
<input type="checkbox"/> F05	Delirium, Not induced by Alcohol and Other Psychoactive Substances	<input type="checkbox"/> F15	Mental and Behavioral Disorders Due to Use of Other Stimulants, including Caffeine
<input type="checkbox"/> F06	Other Mental Disorders Due to Brain Damage and Dysfunction and Physical Disease	<input type="checkbox"/> F16	Mental and Behavioral Disorders Due to Use of Hallucinogens
<input type="checkbox"/> F07	Personality and Behavioral Disorders Due to Brain Disease, Damage and Dysfunction	<input type="checkbox"/> F17	Mental and Behavioral Disorders Due to Use of Tobacco
<input type="checkbox"/> F09	Unspecified Organic or Symptomatic Mental Disorder	<input type="checkbox"/> F18	Mental and Behavioral Disorders Due to Use of Volatile Solvents
		<input type="checkbox"/> F19	Mental and Behavioral Disorders Due to Use of Multiple Drug Use and Use of Other Psychoactive Substances

<i>F2</i>	<i>Schizophrenia, schizotypal and delusional disorders</i>	<i>F3</i>	<i>Mood (affective) disorders</i>
<input type="checkbox"/> F20	Schizophrenia	<input type="checkbox"/> F30	Manic Episode
<input type="checkbox"/> F21	Schizotypal Disorder	<input type="checkbox"/> F31	Bipolar Affective Disorder
<input type="checkbox"/> F22	Persistent Delusional Disorders	<input type="checkbox"/> F32	Depressive Episode
<input type="checkbox"/> F23	Acute and Transient Psychotic Disorders	<input type="checkbox"/> F33	Recurrent Depressive Disorder
<input type="checkbox"/> F24	Induced Delusional Disorder	<input type="checkbox"/> F34	Persistent Mood (Affective) Disorders
<input type="checkbox"/> F25	Schizoaffective Disorders	<input type="checkbox"/> F38	Other Mood (Affective) Disorders
<input type="checkbox"/> F28	Other Nonorganic Psychotic Disorders	<input type="checkbox"/> F39	Unspecified Mood (Affective) Disorder
<input type="checkbox"/> F29	Unspecified Nonorganic Psychosis		

<i>F4</i>	<i>Neurotic, stress-related and somatoform disorders</i>	<i>F5</i>	<i>Behavioral syndromes associated with physiological disturbance and physical factors</i>
<input type="checkbox"/> F40	Phobic Anxiety Disorders	<input type="checkbox"/> F50	Eating Disorders
<input type="checkbox"/> F41	Other Anxiety Disorders	<input type="checkbox"/> F51	Nonorganic Sleep Disorders
<input type="checkbox"/> F42	Obsessive – Compulsive Disorder	<input type="checkbox"/> F52	Sexual Dysfunction, Not Caused by Organic Disorder or Disease
<input type="checkbox"/> F43	Reaction to Severe Stress, and Adjustment Disorders	<input type="checkbox"/> F53	Mental and Behavioral Disorders Associated with the Puerperium, Not Elsewhere Classified
<input type="checkbox"/> F44	Dissociative (Conversion) Disorders	<input type="checkbox"/> F54	Psychological and Behavioral Factors Associated with Disorders or Diseases Classified Elsewhere
<input type="checkbox"/> F45	Somatoform Disorders	<input type="checkbox"/> F55	Abuse of Non- Dependence-Producing Substances

F4	Neurotic, stress-related and somatoform disorders	F5	Behavioral syndromes associated with physiological disturbance and physical factors
<input type="checkbox"/> F48	Other Neurotic Disorders	<input type="checkbox"/> F59	Unspecified Behavioral Syndromes Associated with Physical Disturbances and Physical Factors

F6	Disorders of adult personality and behaviour	F7	Mental retardation
<input type="checkbox"/> F60	Specific Personality Disorders	<input type="checkbox"/> F70	Mild Mental Retardation
<input type="checkbox"/> F61	Mixed and Other Personality Disorders	<input type="checkbox"/> F71	Moderate Mental Retardation
<input type="checkbox"/> F62	Enduring Personality Changes, Not Attributable to Brain Damage and Disease	<input type="checkbox"/> F72	Severe Mental Retardation
<input type="checkbox"/> F63	Habit and Impulse Disorders	<input type="checkbox"/> F73	Profound Mental Retardation
<input type="checkbox"/> F64	Gender Identity Disorders	<input type="checkbox"/> F78	Other Mental Retardation
<input type="checkbox"/> F65	Disorders of Sexual Preference	<input type="checkbox"/> F79	Unspecified Mental Retardation
<input type="checkbox"/> F66	Psychological and Behavioral Disorders Associated with Sexual Development and Orientation		
<input type="checkbox"/> F68	Other Disorders of Adult Personality Behavior		
<input type="checkbox"/> F69	Unspecified Disorder of Adult Personality and Behavior		

F8	Disorders of psychological development	F9	Behavioral and Emotional disorders with onset usually occurring in childhood and adolescence
<input type="checkbox"/> F80	Specific Developmental Disorders of Speech and Language	<input type="checkbox"/> F90	Hyperkinetic Disorders
<input type="checkbox"/> F81	Specific Developmental Disorders of Scholastic Skills	<input type="checkbox"/> F91	Conduct Disorders
<input type="checkbox"/> F82	Specific Developmental Disorders of Motor Function	<input type="checkbox"/> F92	Mixed Disorders of Conduct and Emotions
<input type="checkbox"/> F83	Mixed Specific Developmental Disorders	<input type="checkbox"/> F93	Emotional Disorders with Onset Specific to Childhood
<input type="checkbox"/> F84	Pervasive Developmental Disorders	<input type="checkbox"/> F94	Disorders of Social Functioning with Onset Specific to Childhood and Adolescence
<input type="checkbox"/> F88	Other Disorders of Psychological Development	<input type="checkbox"/> F95	Tic Disorders
<input type="checkbox"/> F89	Unspecified Disorder of Psychological Development	<input type="checkbox"/> F98	Other Behavioral and Emotional Disorders with Onset Usually Occurring in Childhood and Adolescence
		<input type="checkbox"/> F99	Mental Disorder, Not Otherwise Specified

Table III Comorbidities list

code	Comorbidities (*) ¹	Quan's ICD-9-CM ²	ICD-10
□01	Myocardial infarction (1)	410.x, 412.x	I21.x, I22.x, I25.2
□02	Congestive heart failure (1)	398.91, 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 425.4–425.9, 428.x	I09.9, I11.0, I13.0, I13.2, I25.5, I42.0, I42.5–I42.9, I43.x, I50.x, P29.0
□03	Peripheral vascular disease (1)	093.0, 437.3, 440.x, 441.x, 443.1–443.9, 47.1, 557.1, 557.9, V43.4	I70.x, I71.x, I73.1, I73.8, I73.9, I77.1, I79.0, I79.2, K55.1, K55.8, K55.9, Z95.8, Z95.9
□04	Cerebrovascular disease (1)	362.34, 430.x–438.x	G45.x, G46.x, H34.0, I60.x–I69.x
□05	Dementia (1)	290.x, 294.1, 331.2	F00.x–F03.x, F05.1, G30.x, G31.1
□06	Chronic pulmonary disease (1)	416.8, 416.9, 490.x–505.x, 506.4, 508.1, 508.8	I27.8, I27.9, J40.x–J47.x, J60.x–J67.x, J68.4, J70.1, J70.3
□07	Rheumatic disease (1)	446.5, 710.0–710.4, 714.0–714.2, 714.8, 725.x	M05.x, M06.x, M31.5, M32.x–M34.x, M35.1, M35.3, M36.0
□08	Peptic ulcer disease (1)	531.x–534.x	K25.x–K28.x
□09	Mild liver disease (1)	070.22, 070.23, 070.32, 070.33, 070.44, 070.54, 070.6, 070.9, 570.x, 571.x, 573.3, 573.4, 573.8, 573.9, V42.7	B18.x, K70.0–K70.3, K70.9, K71.3–K71.5, K71.7, K73.x, K74.x, K76.0, K76.2–K76.4, K76.8, K76.9, Z94.4
□10	Diabetes without chronic complication (1)	250.0–250.3, 250.8, 250.9	E10.0, E10.1, E10.6, E10.8, E10.9, E11.0, E11.1, E11.6, E11.8, E11.9, E12.0, E12.1, E12.6, E12.8, E12.9, E13.0, E13.1, E13.6, E13.8, E13.9, E14.0, E14.1, E14.6, E14.8, E14.9
□11	Diabetes with chronic complication (2)	250.4–250.7	E10.2–E10.5, E10.7, E11.2–E11.5, E11.7, E12.2–E12.5, E12.7, E13.2–E13.5, E13.7, E14.2–E14.5, E14.7
□12	Hemiplegia or paraplegia (2)	334.1, 342.x, 343.x, 344.0–344.6, 344.9	G04.1, G11.4, G80.1, G80.2, G81.x, G82.x, G83.0–G83.4, G83.9
□13	Renal disease (2)	403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93, 582.x, 583.0–583.7, 585.x, 586.x, 588.0, V42.0, V45.1, V56.x	I12.0, I13.1, N03.2–N03.7, N05.2–N05.7, N18.x, N19.x, N25.0, Z49.0–Z49.2, Z94.0, Z99.2
□14	Any malignancy, including lymphoma and leukemia, except malignant neoplasm of skin (2)	140.x–172.x, 174.x–195.8, 200.x–208.x, 238.6	C00.x–C26.x, C30.x–C34.x, C37.x–C41.x, C43.x, C45.x–C58.x, C60.x–C76.x, C81.x–C85.x, C88.x, C90.x–C97.x
□15	Moderate or severe liver disease (3)	456.0–456.2, 572.2–572.8	I85.0, I85.9, I86.4, I98.2, K70.4, K71.1, K72.1, K72.9, K76.5, K76.6, K76.7
□16	Metastatic solid tumor (6)	196.x–199.x	C77.x–C80.x
□17	AIDS/HIV (6)	042.x–044.x	B20.x–B22.x, B24.x
□18	Sensory impairments	e.g. blindness, deafness,	H53.x–H54.x
□19	Odontological problems	e.g. missing teeth	K02.x–K09.x
□20	Thyroid dysfunction		E01.x–E07.x
□21	Seizures		G40.x–G41.x
□22	Others		

¹ Charlson ME, Pompei P, Ales KL, MacKenzie CR. A new method of classifying prognostic comorbidity in longitudinal studies: development and validation. *J Chrom Dis.* 1987; 40(5): 373-383.

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