

Databases available for pharmacoepidemiology researches in Japan (information obtained from survey answers as of August 2023)

	Hospital-based									Insurance-based						Pharmacy-based				Others		
	NHO NCDA/MIA	4DIN	LDI	MID-NET	Tokushukai	MDV	JMDC	HCEI/RWD	NCD	NDB	JMDC	Cross Fact	JammNet	MDV	DeSC	IQVIA Claims data	Cross Fact	IQVIA NPA data	Nihon-Chouzai	JMDC	NHWS	PatientsMap
Database organizer	National Hospital Organization	4DIN Ltd.	Life Data Initiative	Pharmaceuticals and Medical Devices Agency	Tokushukai Information System Incorporated	Medical Data Vision Co., Ltd.	JMDC Inc	Real World Data, co.Ltd.(JMDC Corporation Group)	National Clinical Database	Ministry of Health, Labour and Welfare	JMDC Inc	INTAGE Real World Inc.	JammNet	Medical Data Vision Co., Ltd.	DeSC Healthcare, Inc.	IQVIA Solutions Japan K.K.	INTAGE Real World Inc.	IQVIA Solutions Japan K.K.	Japan Medical Research Institute CO., LTD	JMDC Inc	SSRI Cerer Enviza	Social Survey Research Information Co., Ltd
Database name	National Hospital Organization Clinical Data Archives: NCDA/Medical Information Analytics: MIA	4DIN Research Network	Millennium Medical Record	Medical Information Database Network (MID-NET)	Tokushukai Medical Database	EBM Provider®	JMDC Hospital Database	RWD-DB	National Clinical Database	National Database of Health Insurance Claims and Specific Health Checkups of Japan	JMDC Payer database	Croaa Fact	JammNet database	EBM Provider®	DeSC database	IQVIA Claims data	Cross Fact	IQVIA NPA data	NIHON CHOUZAI Prescription Database	JMDC Pharmacy Database	National Health and Wellness Survey	PatientsMap
Contact information	700-dproject@mail.hosp.go.jp	info@4din.com	contact@ldi.or.jp	wakurimidnet@pmda.go.jp		ebm_sales@mdv.co.jp	mdbhelp@jmdc.co.jp	solution@rwddata.co.jp	public@ncd-core.jp		mdbhelp@jmdc.co.jp	rw-info@intage.com	support@jamm-net.co.jp	ebm_sales@mdv.co.jp	rwe-psales@desc-hc.co.jp		rw-info@intage.com		soken-info@jmedri.co.jp	mdbhelp@jmdc.co.jp	nhs@sri.com	patientsmap@sri.com
Web site URL	https://nho.hosp.go.jp/cnt1-1_000070.html	https://4din.com/	https://www.ldi.or.jp/	https://www.pmda.go.jp/safety/mid-net0001.html	https://www.tokushukai-is.com/service/tmd.php	https://www.mdv.co.jp/	https://www.phm-jmdc.com/	https://rwddata.co.jp/	https://www.ncd.or.jp/	https://www.mhlw.go.jp/stf/seisakunitsuite/unya/kenkou_iryu/ryouhouken/reseputo/index.html	https://www.phm-jmdc.com/	https://www.intage-realworld.co.jp/	https://www.jamm-net.co.jp/	https://www.mdv.co.jp/	https://desc-hc.co.jp/archives/publication	www.iqvia.co.jp	https://www.intage-realworld.co.jp/	www.iqvia.co.jp	https://www.jpmedri.co.jp/	https://www.phm-jmdc.com/	https://www.sri.com/service/omnibus/rnw/s/	https://www.sri.com/service/omnibus/patientsmap/
DOI of articles about the database	DOI:10.2147/CLEP.S359072		https://doi.org/10.3829/0/ipe.27.3	10.1002/pds.4777-10.1002/pds.4879			https://onlinepubs.wiley.com/doi/10.1002/nf2.367		https://www.ncd.or.jp/		https://onlinepubs.wiley.com/doi/10.1002/nf2.422	None			10.31662/maj.2021-0189		None					
Database Overview	Clinical database based on 70 NHO hospital information systems and 140 DPC/receipt data	Network to collect, deidentify and summarize various data from medical institutions	Millennial Medical Record is the business followed by a Japanese law called "The Next Generation Medical Infrastructure Act". Our dataset is including DPC survey data, Claims data and data from electric medical records in Japan. By using unstructured text data and laboratory test results such as blood test/urine test, it is beneficial for identifying clinical outcome and also creating more detailed and accurate patient cohort for your study.	The medical information Database network system for utilizing in safety assessment managed by PMDA under the Act on the Pharmaceuticals and Medical Devices Agency	Tokushukai group is comprised of over 70 hospitals in Japan, and the group manages the medical database with 14 million patients. Tokushukai works on research and AI development by using medical, management, and clinical data of the hospitals.	Administrative database for inpatient and outpatient consists of 485 acute (mainly considered as "advanced treatment hospitals") hospitals in Japan	A database of cases sourced from receipts, electronic medical records (clinical laboratory values), and DPC survey data collected from more than 900 DPC/non-DPC hospitals nationwide. Includes abundant information on elderly and hospitalized patients.	Integrated database of medical information such as electronic medical records, DPC data, and claims	Multidisciplinary registry platform initially developed by surgery related professional societies in Japan. Currently managing nationwide registries for various surgeries, interventions, pathology, as well as cancer registries. Also collects hospital based DPC / claims data which can be used together with the registry data for research.	Database of health insurance claims and specific health checkups for preparation, implementation, and evaluation of medical cost optimization plan	Japan's largest epidemiological database consisting of receipts, health checkup results, and subscriber registers from insurers nationwide. The database has excellent patient traceability (up to 17 years), and its population includes healthy people, making it possible to examine the prevalence and incidence of diseases. It is also linked to the PRO Panel, which enables direct approaches to patients through questionnaires and article distribution.	Database based on health insurance, include of all receipt(include dental recep!),except of Organ transplant patient and comment field for all patients.	An insurance claims database that utilizes the insurance system, as well as limited data on the elderly.	Health claims database from inpatient, outpatient, and pharmacy claims consists of 162 health insurance societies in Japan. We can also provide a database of anonymized processed information created from the DeSC database's receipt data, health checkup data, and subscriber ledgers.	A database of anonymized processed information based on receipt data, annual medical checkup data, and enrollment information collected from multiple Employee Health Insurance, National Health Insurance, and Latter-Stage Elderly Healthcare System. PRO data and life log data can be provided as options.	Claims database consists of 245 health insurance societies in Japan.	Pharmacy claims database contains extramural dispense records	Pharmacy claims database collecting dispense claims from 10,800 pharmacies nationwide. # of prescriptions: 169 million in 2022.	The database is based on outpatient prescriptions from medical institutions, various surveys of patients, DTC (direct to consumer), and other sources. NIHON CHOUZAI is Japan's second largest dispensing group, with a chain of 726 stores in Japan.	A dispensing database that uses prescriptions and receipts from dispensing pharmacies across the country as its source.	NHWS collects data from patients in 10 countries. The data includes more than 165 disease areas and provides a variety of metrics, such as prevalence, diagnosis and treatment rates and more than 10,000 other variables not mentioned here.	This is a survey database of more than 38,000 clinical physicians in Japan, the United States, China, and the United Kingdom. It is possible to ascertain the medical treatment rate and the number of patients treated for a cumulative total of 1,000 diseases including rare diseases, the number of patients prescribed drugs, diseases for which new drugs are desired, and the activities of more than 50 pharmaceutical companies.
Data source	DPC (Format 1) Yes DPC (EF file) Yes Medical claim Yes Dental claim No Pharmacy claim No Electronic medical chart Yes Lab test results Yes Ordering Limited Health checkup Yes Registry No Others No	Yes Yes Limited No No Yes Yes Limited No No Yes	Yes Yes No No Yes Yes Yes No No No Yes	Yes Yes Yes No No Yes Yes No No No Yes	Yes Yes Yes No No Yes Yes No No No Yes	Yes Yes Yes No No Yes No No No No Yes	Yes Yes Yes No No Yes No No No No Yes	Yes Yes Yes No No Yes No No No No Yes	Yes Yes Yes No No Yes No No No No Yes	No No Yes Yes Yes No No No No No Yes	No No Yes Yes Yes No No No No No Yes	No No Yes Yes Yes No No No No No Yes	No No Yes Yes Yes No No No No No Yes	No No Yes Yes Yes No No No No No Yes	No No Yes Yes Yes No No No No No Yes	No No Yes Yes Yes No No No No No Yes	No No Yes Yes Yes No No No No No Yes	No No Yes Yes Yes No No No No No Yes	No No Yes Yes Yes No No No No No Yes	No No Yes Yes Yes No No No No No Yes	No No Yes Yes Yes No No No No No Yes	
Others, notes			In category of [Data source: electronic medical record], data from electric medical records include unstructured text data such as patient note/clinical summary/summary on discharge/medical reference letter etc. (which are not include in structured data)			DPC (Dfile) /DPC claims/blood test data *Blood test data is limited to some hospitals						DPC Receipt	DPC Receipt	DPC claims and partially available ledger information	Life-log of HL, QOL, WPAL, PSQI, number of steps, blood glucose level, blood pressure, and body weight data can be used in Employee Health Insurance (EHI) and National Health Insurance(NHI).	DPC claims, partially subscriber ledger information		Pharmaceutical delivery quantity, Patient Survey			Yes	Physician survey
Data collected from	Medical institution	Medical institution	Medical institution	Medical institution	Medical institution	Medical institution	Medical institution	Medical institution	Medical institution	Others	Health insurance association	Health insurance association	Health insurance association	Health insurance association	Health insurance association	Health insurance association	Pharmacy	Pharmacy	Pharmacy	Pharmacy		Others
Others, notes										Insurance claims and special health checkups and specific health guidance data from all health insurance associations					We deliver claim data which includes Employee Health Insurance (EHI), National Health Insurance(NHI) and Latter-Stage Elderly Healthcare System (LSEHS).							Individual Physician
Number of organizations	140			23	72	485	937	190	5600		285	172		162	280	245	3258	10800	726	5600		
Data period	2016	Before 2000	2015	2009	2010	2008	Before 2000	Before 2000	2011	2008	2005	2010	2006	2012	2014	2012	2015	2015	2001	2020	Before 2000	2011
Starting year	2023	2023	2023	2023	2023	2023	2023	2023	2022	2023	2023	2023	2023	2023	2022	2023	2023	2023	2023	2023	2022	2023
Latest year																						
Notes	Starting year MIA : 2011	By participating hospitals	Data period is limited to all patients who are visited hospitals after July 2020 excluding those who refused to provide their medical information. Once a patient has visited a hospital, the patient's medical information from earlier periods can also be collected.		The start timing depends on the hospital.	*Mainly from April 2010								the maximum data period is 8 years, and its minimum is 1 year.			Part of the data is available from April 2008.	Data up to the previous day can be provided		Since 1998 (2008 for Japanese data). 2023 Data will be available in January, 2024.	Varies by survey area	
Handling Anonymously Processed Information	No	Yes	Yes	No		Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		No
Following the regulations on Anonymously Processed Information		Yes	Yes			Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		

	Hospital-based									Insurance-based						Pharmacy-based				Others		
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Size																						
Number of unique identifiers (approx. 10K people)	500	821	158	605	1470	4425	3425	1410	2200	12000	1600	1071.3	214	860	1200	1557	3666	8917	2100	3276	200	37000
Notes			The number of unique identifiers covers facilities that have become available for use from among the 62 contracted hospitals.	As of December,2022						Almost equal to total population in Japan		Health insurance membership approx 12.3 million			Person who is enrolled at least once during the data period.	Cumulative number of patients during the data period	Net number of patients since April 2015	The registrants are not fixed because patients who visit pharmacies are targeted.			2 million	Japan: 2,000, U.S.: 6,000, China: 12,000, U.K.: 1,000
Annual number of unique identifiers (latest year) (approx. 10K people)	200	64			174	1211	848	334	200		1000	897		436	755	759	1239	3464	200	1888	3	2
The latest year	2021	2022			2022	2022	2022		2022		2023	2022		2022	2022	2022	2022	2022	2022	2022	2022	2022
Notes					Patients who have a basic medical payment record (Ministry of Health and Welfare Code A) in their account. Except dentistry. Reference: 2019 = 1.4 million	April 2022-March 2023		April 2022 - March 2023				January 2022 to December 2022 : Net number of patients approx 4.95 million		April 2022-March 2023		Number of patients from April 2022 to March 2023	August 2022 to July 2023	approx. 34,640,000	April 2022 to March 2023		Japan Data : 30,000 (The data are processed by magnification factor in accordance with the census data to make the data nationally representative.)	Japan Data
% coverage of population	NCD: 2.1% of Japanese population, MIA: approx. 17% of Japanese population	About 6.7% of Japanese population	4.2%. It covers 32 out of a total of 757 hospitals with 400 beds or more in Japan, (according to the Medical Facility Dynamics Survey Hospital in 2020)			about 9.7% of Japanese population about 27.5% of total number for acute hospitals						Covers 8.57% of the total population in Japan (total population in 2022)	approx 2% of insurance programs	about 3.5% of Japanese population	Coverage ratio is EHI ... 2.4% NHI ... 15.2% LSEHS ... 17.6% The denominator is number of members for each insurance.	Approx. 6.1% of the Japanese population	7% of annual prescription (Survey by Japan Pharmaceutical Association)	approx. 21.4% of total extramural dispense claims (based on Survey by Japan Pharmaceutical Association)	Approx. 2.0% of the estimated number of out-of-hospital prescriptions by the Japan Pharmaceutical Association	0.03% of the adult population	5.9% of total number of physicians in Japan	
Annual N of outpatients (latest year) (approx. 10K people)	200	63			169	1166	861	320			840	492.4	192	436	593	756	1239		200	1888		
Annual N of inpatients (latest year) (approx. 10K people)	63	10			23	222	155	54			41	23.9	3	21	52	35				0		
Annual N of medicated diabetes patients (latest year) (approx. 10K people)		4			6.7	78	62	21			30	14.6	12	14	85	24	64		23	75		500
Definition		The number of patients with the disease of ICD10 E10-E14 (Exclude suspected cases) or the number of patients that a diabetes medicine was prescribed			2022. The number of outpatients who has the payment record of diabetes medications.	Target disease: ICD10: E10-E14 (exclude suspected cases) Target medication: ATC (EphMRA): A10 Condition for target patients: Target medication was prescribed in the same month as the diagnosis of the target disease.		Patients with ICD-10:E10-E14 disease assignment (excluding suspected) and (and conditions) ATC:A10 drugs prescribed				ICD-10:E10-E14 and EphmraATC : A10	ICD10 : E10-E14 ATC : A10	Target disease: ICD10: E10-E14 (exclude suspected cases) Target medication: ATC (EphMRA): A10 Condition for target patients: Target medication was prescribed in the same month as the diagnosis of the target disease.	The disease and drug are defined as below. diabetis: ICD-10 code E10-E14 antidiabetic drug: ATC code A10 Treated diabetes patient is defined as a person who is diagnosed as diabetes and prescribed antidiabetic drug in the same month during 2022 at least once.	Data period : April 2022 - March 2023 Dianosis : Diabets (ICD10 : E10-E14) Prescription : Antidiabetic drug (ATC(EphMRA) : A10)	Patients prescribed diabetes treatment		Patients prescribed diabetic medications		Number of chart-based patients prescribed any drug.	
Annual N of influenza diagnosed patients (latest year) (approx. 10K people)		0.1			0.2	4.9	4	1.74			30	1.5	0.1	16	0.4	26	16		3			0.8
Definition		The number of patients with the disease of ICD10 J10, J11 (Exclude suspected cases) or the number of patients that a influenza medicine was prescribed			2022. The number of patients with ICD10-J09-J11 newly added to the name of the receipt disease. (no duplicates) (Not including suspected disease) Ex. 2019=80,000.	ICD10 : J10, J11		Patients assigned ICD-10:J09-J11 disease				ICD-10:J10-J11	ICD : J09,J10,J11	ICD10 : J10, J11	The disease is defined as below. Influenza: ICD-10 code J09, J10, J11 Influenza patient is defined as a person who is diagnosed as Influenza during 2022 at least once.	ICD-10 : J09,J10,J11	Patients prescribed anti-influenza drugs		Number of prescriptions for anti-influenza drugs		Number of patients documented in the medical record by the physician.	
Number of patients followed ≥1 year (approx., 10K people)					56	1865	1457	799			1142	786.4	203	651	970	1199	700		145			
≥3 year (approx., 10K people)						1194	859	556			775	504.5	176	451	640	821	398		100			
≥5 year (approx., 10K people)						733	476	368			440	312.5	160	306	350	543	258		69			
Median (approx., year)					2	Average		2.8			2.67	9.3	Up to 15 years	4	Average	3	3.3	1.6		5		
Notes					Patients who have a basic medical payment record (Ministry of Health and Welfare Code A) in both 2021 and 2019			Median is calculated excluding patients with only one visit (average is about 4.9 years)									Patients from August 2022 to July 2023		in annual number of Person ID: 200			
Age Distribution																						
0 - 14 years old (approx., %)	7	6.6	12		10	14.2	8.2	9.5			17	18.9	19	21.8	5.44	16	15	14.4	10.7	17	0	
15 - 64 years old (approx., %)	38	52.6	44		50	50.7	42.3	42.7			79	77.48	58	76	43.13	78	56	53.2	53.6	50	67	
65 - 74 years old (approx., %)	25	18.8	19		15	16.1	18.8	18.1			4	3.55	17	2.2	18.45	6	14	14	15.3	14	33	
75 years old or older (approx., %)	30	22	25		25	19	30.7	29.7			0	0.06	6	0	32.98	0	15	18.4	20.3	19		
Notes		Age distribution of patients in the latest year			We use the data (2020, Jan-Dec).			Age distribution of patients in the latest year										Net patient based				Respondents are 18 or older
Prescriptions (data availability)																						
Dispensing (in-hospital)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Limited	No
Dispensing (out-of-hospital)	Yes	Yes	Limited	Limited	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Limited	No
Date of prescription	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Limited	No
Date of dispensing	Yes	Limited	Limited	No	Yes	Yes	Limited	No	Yes	Limited	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Limited	No
Dosage of prescription	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Days of supply	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Administration	Yes	Yes	Yes	Yes	Yes	No	Limited	No	No	Limited	No	Limited	No	Limited	Limited	Limited	Yes	No	Yes	Limited	Limited	No
Injection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Limited	Limited	Yes	Limited	Yes	No
Vaccine	Limited	Limited	Yes	Limited	Yes	No	Limited	Limited	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No
Drug master																						
Any available master	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
ATC (EphMRA)	No	Yes	No	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Limited	Yes	Yes	No	No
ATC (WHO)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Limited	No	Yes	Yes	Yes	Limited	No	Yes	Yes	No	No
YJ code	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No
NHI drug price list code	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	No
HOT code	Yes	Yes	No	Yes	Yes	No	No	No	No	No	No	Yes	No	No	No	No	No	No	Yes	No	No	No
Reimbursement code	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No	No
Hospital-original code	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Others	No	No	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No
Others, notes			Ingredient Quantity Master					Titer						Titer								

	Hospital-based										Insurance-based						Pharmacy-based				Others			
	NHO NCD/MIA	4DIN	LDI	MID-NET	Tokushukai	MDV	JMDC	HCEI/RWD	NCD		NDB	JMDC	Cross Fact	JammNet	MDV	DeSC	IQVIA Claims data	Cross Fact	IQVIA NPA data	Nihon-Chouzai	JMDC	NHWS	PatientsMap	
Procedures (data availability)																								
Procedure name	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Limited	No	
Date of procedure	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	
Procedure master																								
Any available master	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	Limited	
Reimbursement category	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	
Reimbursement code	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	
Others	No	No	No	No		No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	
Hospitalization (data availability)																								
Date of hospital admission	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Limited	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Limited	No	
Date of hospital discharge	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Limited	Limited	Yes	Yes	Yes	Yes	Limited	Yes	No	No	No	No	No	No	
Medication while hospitalization	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	
Diagnosis (data availability)																								
Diagnosis name	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	
Suspicious diagnosis or not	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	
Diagnosis master																								
Any available master	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	
Standard diagnosis code (Reimbursement code)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	
ICD10 code (2013)	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	
ICD10 code (other than 2013)	Yes	No	No	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes	No	No	No	No	No	No	No	
Others	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	
Laboratory test (data availability)																								
Lab test (ordering)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	No	No	No	No	No	No	No	No	
Lab test results																								
Any available test results	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	
Lab test for sample (e.g., blood, urine, microbe)	Yes	Limited	Yes	Yes	Yes	Yes	Yes	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	
Physiological test (e.g., respiratory function, brain waves, supersonic waves)	No	Limited	Limited	No	No	No	Limited	Limited	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	
Results of diagnostic imaging (e.g., report of imaging interpretation)	No	Limited	Limited	No	No	No	Limited	Limited	Limited	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	No	
Genetic test (pathological tissue)	No	Limited	Limited	No	No	No	Limited	Limited	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	
Others	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	
Others, notes				Laboratory test result can be identified from structured data, while other laboratory test results can be identified from unstructured data. Continuous test results for each patient are available.																				
Lab test master																								
Any available master	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No	
Loinc code	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	
JLAC code	Yes	No	No	Yes	Yes	Yes	Yes	Limited	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	
Reimbursement code	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	
Hospital-original code	Yes	Yes	Limited	Yes	Yes	Yes	No	Yes	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	
Others	No	No	No	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	
Others, notes								RWD proprietary master created based on JLAC10																
Demographic_Vital (data availability)																								
Birth year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
Birth month	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	No	No	
Birth date	Yes	Yes	No	Yes	Yes	No	No	No	Yes	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	
Age	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
Height	Yes	Yes	Yes	Yes	Limited	Limited	Limited	Limited	Yes	Yes	Limited	No	Yes	No	Limited	No	No	No	No	Limited	No	Yes	No	
Weight	Yes	Yes	Yes	Yes	Limited	Limited	Limited	Limited	Yes	Yes	No	Limited	No	No	Limited	No	No	No	No	Limited	No	Yes	No	
Blood pressure	Yes	Limited	Yes	No	Limited	Limited	Limited	No	Limited	No	No	No	No	No	Limited	No	No	No	No	Limited	No	Limited	No	
Insurers for patients																								
National health insurance	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Limited	No	No	Limited	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	
Japan health insurance association	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Limited	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Limited	No	
Health insurance society	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Limited	Yes	Yes	Yes	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Limited	No	
Mutual society of health insurance	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Limited	No	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Limited	No	
Late-stage medical care system for the elderly	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Limited	No	No	Limited	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Limited	No	
Data Access, Others																								
Access to raw data via web	No	Yes	No	No		Limited	Yes	Yes	No	No	Yes	Yes	Yes	Limited	Yes	Yes	Yes	Limited	Yes	Yes	Yes	Limited	Yes	
Access to original source data such as medical charts (e.g., outcome validation, additional data collection)	Yes	Limited	Limited	No	Yes	Limited	Limited	Limited	No	No	No	No	No	No	No	No	No	No	No	No	No	Limited	No	
Timing of data update																								
Others, notes	Daily	Monthly	Monthly	every week at the earliest	Daily	Monthly	Monthly	3 months	Annually	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Daily	Weekly	Annually	Annually	
Latest data	Previous day	1 month ago	2 months ago	No lag time	2 months ago	2 months ago	1 month ago	4 months ago			2 months ago	2.5 months ago	3 months ago	3 months ago	7 months ago	3 months ago	1 months ago	1 months ago	Previous day	3 days ago	12 months ago	11 months ago		
Common Data Model																								
OMOP	No plan	No plan				Available	No plan	Considering	No plan	No plan	No plan	No plan	No plan	Considering	No plan	Available	No plan	Considering	No plan	No plan	No plan	No plan	No plan	
SS-MIX2	Available	Available				Considering	No plan	Considering	No plan	No plan	No plan	No plan	No plan	Considering	No plan	No plan	No plan	No plan	No plan	No plan	No plan	No plan	No plan	
Sentinel	No plan	No plan				Considering	No plan	Considering	No plan	No plan	No plan	No plan	No plan	Considering	No plan	No plan	No plan	No plan	No plan	No plan	No plan	No plan	No plan	
Publication																								
Presentation		9	7			Many	Many	16	Many		Many	A few			79		Many	Many	Many				The total of posters and manuscripts is more than 1,600	
Publication to peer review journal	12	38	4	Therapeutic Innovation & Regulatory Science, CLINICAL PHARMACOLOGY & THERAPEUTICS, etc.		463	*Total number of publications including peer review	34	Many		620	A few			21		Many	4 (as of Aug., 2023)	Many				The total of posters and manuscripts is more than 1,600	