Institut Municipal d'Assistència Sanitària Information System / Hospital del Mar / PSMAR / (Hospital del Mar Information System)

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Data source | Human | Cancer registry | Hospital inpatient records | Hospital outpatient visit records | Primary care medical records

Administrative details

Administrative details

Data source ID

104316

Data source acronym

IMASIS

Data holder

Parc de Salut Mar Barcelona (PSMAR)

Data source type

Cancer registry

Hospital inpatient records

Hospital outpatient visit records

Primary care medical records

Main financial support

National, regional, or municipal public funding

Care setting

Hospital inpatient care

Hospital outpatient care

Secondary care – specialist level (ambulatory)

Data source qualification

If the data source has successfully undergone a formal qualification process (e.g., from the EMA, ISO or other certifications), this should be described.

Yes

Description of the qualification

EHDEN certification, and we are members of the DARWIN EU Initiative.

Data source website

Hospital del Mar Barcelona

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Data source regions and languages

Data source countries

Spain

Data source languages

Catalan

Spanish

Data source regions

Catalunya [Cataluña]

Data source establishment

Data source established

01/01/1990

Data source time span

First collection: 01/01/1990

The date when data started to be collected or extracted.

Publications

Data source publications

Phenotype Algorithms for the Identification and Characterization of Vaccine-Induced Thrombotic Thrombocytopenia in Real World Data: A Multinational Network Cohort Study. Drug Saf 2022; 45: 685–698.

Contextualising adverse events of special interest to characterise the baseline incidence rates in 24 million patients with COVID-19 across 26 databases: a multinational retrospective cohort study. EClinicalMedicine. 2023 Apr;58:101932.

Dementia prevalence and incidence in a federation of European Electronic Health Record databases: The European Medical Informatics Framework resource. Alzheimer Dement. 2018;14(2)

Quality of hospital EHR data sufficient to evidence its ICHOM outcomes performance in heart failure? A pilot evaluation. JMIR Med Inform 2021.

Compartative risk of thromobosis with thrombocytopenia syndrome or thromboembolic events associated with differentcovid-19 vaccines: international network cohort study form five European countries and the US. BMJ 2022;379:e071594.

Treatment of systemic lupus erythematosus: Analysis of treatment patterns in adult and paediatric patients across four European countries. European Journal of Internal Medicine 2024.

Unlocking efficiency in real-world collaborative studies: a multi-site international study with one-shot lossless GLMM algorithm. npj Digit. Med. 2025;8:457

Clusters of post-acute COVID-19 symptoms: a latent class analysis across 9 databases and 7 countries. J Clin Epidemiol. 2025 Jun 13;185:111867

Real-World Data and Real-World Evidence in Regulatory Decision Making: Report Summary From the Council for International Organizations of Medical Sciences (CIOMS) Working Group XIII. Pharmacoepidemiol Drug Saf, 34: e70117.

Standardised and Reproducible Phenotyping Using Distributed Analytics and Tools in the Data Analysis and Real World Interrogation Network (DARWIN EU). Pharmacoepidemiol Drug Saf, 33: e70042.

Incidence of post-acute COVID-19 symptoms across healthcare settings in seven countries: an international retrospective cohort study using routinely-collected data. eClinicalMedicine, Volume 77, 102903.

Incident Use of Hydroxychloroquine for the Treatment of Rheumatoid Arthritis and Systemic Lupus Erythematosus During the COVID-19 Pandemic. Arthritis Care Res, 76: 1173-1178

Vascular and metabolic risk factor differences prior to dementia diagnosis: a multidatabase case–control study using European electronic health records. BMJ Open 2020;10:e038753

Studies

List of studies that have been conducted using the data source

DARWIN EU® Characterization of patients with chronic hepatitis B and C

DARWIN EU® DUS of Antibiotics in the ‘Watch’ category of the WHO AWaRe classification of antibiotics for evaluation and monitoring of use

DARWIN EU® - Background rates of serious adverse events to contextualise safety assessments in clinical trials and non-interventional studies in adolescent and adult patients with severe asthma

DARWIN EU® Multiple myeloma: patient characterisation, treatments and survival in the period 2012-2022

DARWIN EU® Treatment patterns of drugs used in adult and paediatric population with systemic lupus erythematosus

DARWIN EU® Drug utilisation study of medicines with prokinetic properties in children and adults diagnosed with gastroparesis

Incidence, prevalence, and characterisation of medicines with suggested drug shortages in Europe

DARWIN EU® Rates of occurrence of treatment-related intercurrent events in patients with major depressive disorder

DARWIN EU® Age specific incidence rates of RSV related disease in Europe

DARWIN EU® Monitoring prescription of medicines for public health emergencies at risk of shortages

DARWIN EU® Monitoring prescription of essential medicines administered in ICU

DARWIN EU® Overall survival in patients with locally advanced or metastatic non-small cell lung cancer treated with selected immunotherapies as first line of treatment

DARWIN EU® - Azathioprine - user characteristics

DARWIN EU® -Drug utilisation of salbutamol products for inhalation and therapeutic alternative inhalation products

DARWIN EU® - Prescription trends of ketamine and esketamine

DARWIN EU® – Monitoring prescription of medicines for public health emergencies at risk of shortages

DARWIN EU® - RR1 Drug Utilisation Study of prescription opioids

DARWIN EU® - Monitoring prescription of essential medicines administered in ICU

DARWIN EU® - Drug Utilisation Study on Antibiotics in the ‘Reserve’ category of the WHO AWaRe classification of antibiotics for evaluation and monitoring of use

DARWIN EU® - Drug Utilisation Study on Antibiotics in the ‘Watch’ category of the WHO AWaRe classification of antibiotics for evaluation and monitoring of use

DARWIN EU® - Descriptive study of tetanus immunoglobulin use and tetanus-prone wounds in Europe

DARWIN EU® - Enabling pregnancy and mother-child research in DARWIN EU® Data Network - PeriNet

DARWIN EU® - Enhanced Preparedness of the DARWIN EU Network for regulatory questions in oncology – DARWIN OncoNet

DARWIN EU® - Capturing suicidality and depression related variables in databases

DARWIN EU® - Representativeness of the clinical trial population compared with the real-world population with resistant hypertension

Data elements collected

The data source contains the following information

Disease information

Does the data source collect information with a focus on a specific disease? This might be a patient registry or other similar initiatives.

No

Rare diseases

Are rare diseases captured? In the European Union a rare disease is one that affects no more than 5 people in 10,000.

Yes

Pregnancy and/or neonates

Does the data source collect information on pregnant women and/or neonatal subpopulation (under 28 days of age)?

Yes

Hospital admission and/or discharge

Yes

ICU admission

Is information on intensive care unit admission available?

Yes

Cause of death

Captured

Cause of death vocabulary

ICD-10-CM

ICD-9-CM

Prescriptions of medicines

Captured

Prescriptions vocabulary

ATC

other

RxNorm

Prescriptions vocabulary, other

AEMPS CIMA (Spanish Medicine Agency Codes)

Dispensing of medicines

Captured

Dispensing vocabulary

ATC

other

RxNorm

Dispensing vocabulary, other

AEMPS CIMA (Spanish Medicines Agency Codes)

Advanced therapy medicinal products (ATMP)

Is information on advanced therapy medicinal products included? A medicinal product for human use that is either a gene therapy medicinal product, a somatic cell therapy product or a tissue engineered products as defined in Regulation (EC) No 1394/2007 [Reg (EC) No 1394/2007 Art 1(1)].

Yes

Contraception

Is information on the use of any type of contraception (oral, injectable, devices etc.) available?

Yes

Indication for use

Does the data source capture information on the therapeutic indication for the use of medicinal products?

Captured

Indication vocabulary

ICD-10-CM

ICD-9-CM

Medical devices

Is information on medicinal devices (e.g., pens, syringes, inhalers) available?

Yes

Administration of vaccines

Yes

Procedures

Does the data source capture information on procedures (e.g., diagnostic tests, therapeutic, surgical interventions)?

Captured

Procedures vocabulary

ICD-10-CM

ICD-9-CM

Healthcare provider

Is information on the person providing healthcare (e.g., physician, pharmacist, specialist) available? The healthcare provider refers to individual health professionals or a health facility organisation licensed to provide health care diagnosis and treatment services including medication, surgery and medical devices.

Yes

Clinical measurements

Is information on clinical measurements (e.g., BMI, blood pressure, height) available?

Yes

Genetic data

Are data related to genotyping, genome sequencing available?

Captured

Genetic data vocabulary

Other

Biomarker data

Does the data source capture biomarker information? The term “biomarker” refers to a broad subcategory of medical signs (objective indications of medical state observed from outside the patient), which can be measured accurately and reproducibly. For example, haematological assays, infectious disease markers or metabolomic biomarkers.

Captured

Biomarker data vocabulary

Other

Patient-reported outcomes

Is information on patient-reported outcomes (e.g., quality of life) available?

Yes

Patient-generated data

Is patient-generated information (e.g., from wearable devices) available?

Yes

Units of healthcare utilisation

Are units of healthcare utilisation (e.g., number of visits to GP per year, number of hospital days) available or can they be derived? Units of healthcare utilisation refer to the quantification of the use of services for the purpose of preventing or curing health problems.

Yes

Unique identifier for persons

Are patients uniquely identified in the data source?

Yes

Diagnostic codes

Captured

Diagnosis / medical event vocabulary

ICD-10-CM

ICD-9-CM

Not coded (Free text)

Medicinal product information

Captured

Medicinal product information collected

Active ingredient(s)

Brand name

Dosage regime

Dose

Package size

Route of administration

Strength

Medicinal product vocabulary

ATC

Other

RxNorm

If 'other,' what vocabulary is used?

AEMPS CIMA (Spanish Medicines Agency Codes)

Quality of life measurements

Captured

Quality of life measurements vocabulary

Not coded (Free text)

Lifestyle factors

Captured

Lifestyle factors

Alcohol use

Other

Tobacco use

Lifestyle factors included other

Weight and BMI

Sociodemographic information

Captured

Sociodemographic information collected

Age

Country of origin

Gender

Health area

Sex

Quantitative descriptors

Population Qualitative Data

Population age groups

Paediatric Population (< 18 years)

Neonate

Preterm newborn infants (0 – 27 days)

Term newborn infants (0 – 27 days)

Infants and toddlers (28 days – 23 months)

Children (2 to < 12 years)

Adolescents (12 to < 18 years)

Adult and elderly population (≥18 years)

Adults (18 to < 65 years)

Adults (18 to < 46 years)

Adults (46 to < 65 years)

Elderly (≥ 65 years)

Adults (65 to < 75 years)

Adults (75 to < 85 years)

Adults (85 years and over)

Estimated percentage of the population covered by the data source in the catchment area

Hospital del Mar is the hospital of reference for around 400,000 inhabitants in this Barcelona city area (25% of catchment area), although any patient can be visited in the hospital including patients that are coming from other healthcare settings and primary care in Barcelona province and Catalonia.

Description of the population covered by the data source in the catchment area whose data are not collected (e.g., people who are registered only for private care)

Considering the healthcare system in Spain is universal and public, the population covered includes any patient that contacts the services of the hospital both spontaneously and derived from other health care centers. The

population size in the source data is more than 1.7 million and all of them are included in the standardized OMOP CDM instance version.

Family linkage

Family linkage available in the data source permanently or can be created on an ad hoc basis

Ad hoc

Population

Population size

1.826.440

Active population size

593.508

Population by age group

Age group	Population size	Active population size
Paediatric Population (< 18 years)	181.906	54.446
Preterm newborn infants (0 – 27 days)	382	86
Term newborn infants (0 – 27 days)	8.028	2.427
Infants and toddlers (28 days – 23 months)	28.281	7.164

Age group	Population size	Active population size
Children (2 to < 12 years)	84.019	27.181
Adolescents (12 to < 18 years)	61.196	17.588
Adults (18 to < 46 years)	897.528	250.432
Adults (46 to < 65 years)	353.485	152.710
Elderly (≥ 65 years)	393.521	135.920
Adults (65 to < 75 years)	152.469	58.406
Adults (75 to < 85 years)	145.419	45.974
Adults (85 years and over)	95.633	31.540

Median observation time

Median time (years) between first and last available records for unique individuals captured in the data source

7,10

Median time (years) between first and last available records for unique active individuals (alive and currently registered) capt

3,70

Data flows and management

Access and validation

Governance details

Documents or webpages that describe the overall governance of the data source and processes and procedures for data capture and management, data quality check and validation results (governing data access or utilisation for research purposes).

Code of Good Governance

Biospecimen access

Are biospecimens available in the data source (e.g., tissue samples)?

Yes

Biospecimen access conditions

Informed consent is needed to access biospecimen information.

Access to subject details

Can individual patients/practitioners/practices included in the data source be contacted?

Yes

Description of data collection

All data information is collected and recorded using the hospital electronic health records system during medical consultations, lab tests, procedures, admissions, treatments, surgery and all the clinical events.

Event triggering registration

Event triggering registration of a person in the data source

Birth

Disease diagnosis

Practice registration

Start of treatment

Event triggering de-registration of a person in the data source

Death

Loss to follow up

Event triggering creation of a record in the data source

The creation of a record in the data source is typically triggered by events related to patient care and hospital operations. For example, when a patient is registered, a new record is generated to capture personal and medical information. Similarly, clinical encounters, such as consultations, examinations, or treatments, lead to the creation of additional records documenting observations, diagnoses, and prescribed therapies.

Data source linkage

Linkage

Is the data source described created by the linkage of other data sources (prelinked data source) and/or can the data source be linked to other data source on an ad-hoc basis?

Yes

Linkage description, pre-linked

The Spanish National Mortality Registry, the Cancer Registry, hospital outpatients' prescriptions, primary care prescriptions and diagnostics (partially), and all types of vaccinations received are included.

Linkage description, possible linkage

Linkage is possible using the health identification code (CIP) used in Catalonia.

Linked data sources

Pre linked

Is the data source described created by the linkage of other data sources?

Yes

Data source, other

Prescriptions and diagnoses in outpatient settings.

Linkage strategy

Deterministic

Linkage variable

Patient ID (CIP: health identification code)

Linkage completeness

For instance, in vaccines it's 100%, prescriptions and diagnoses in primary care it's about 30%.

Pre linked

Is the data source described created by the linkage of other data sources?

Yes

Data source, other

Tumour Registry that includes additional information regarding treatments, stage or other relevant information related to cancer conditions.

Linkage strategy

Deterministic

Linkage variable

Patient ID

Linkage completeness

80-85% of cancers.

Data management specifications that apply for the data source

Data source refresh

Every 6 months

Informed consent for use of data for research

Required for intervention studies

Possibility of data validation

Can validity of the data in the data source be verified (e.g., access to original medical charts)?

Yes

Data source preservation

Are records preserved in the data source indefinitely?

Yes

Data source preservation length (years)

35 years

Approval for publication

Is an approval needed for publishing the results of a study using the data source?

Yes

Data source last refresh

02/02/2026

Common Data Model (CDM) mapping

CDM mapping

Has the data source been converted (ETL-ed) to a common data model?

Yes

CDM Mappings

CDM name

OMOP

CDM website

https://www.ohdsi.org/Data-standardization/

Data source ETL CDM version

5.4

Data source ETL frequency

4,00 months

Data source ETL status

Completed