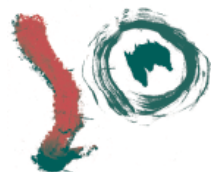


CURSO OMOP

Phenotyping: Herramientas OMOP para definir problemas de salud I



IDIAP
Jordi Gol

Irene López Sánchez

Abril 2024

Phenotyping



Como estos datos no se recopilaron con fines de investigación, es posible que no capturen explícitamente los elementos de los datos clínicos que nos interesan.

Es necesario desarrollar lógica que utilice *lo que se captura en los datos*, para inferir *lo que realmente nos interesa*.

Necesitamos crear una **COHORTE** (fenotipo) utilizando alguna definición de cómo se manifiesta un evento clínico

¿Qué es una cohorte?

DATOS DE MUNDO REAL



Una cohorte se define como *un conjunto de personas que cumplen uno o más criterios de inclusión durante un período de tiempo.*

Las cohortes se utilizan en todas las herramientas analíticas de OHDSI y en estudios de redes como los **bloques de construcción principales** para ejecutar una pregunta de investigación.

— ¿Qué es una cohorte?

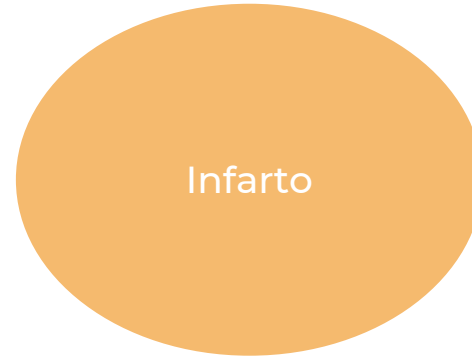
Las cohortes se construyen por bloques independientes:

“Riesgo de infarto en personas diabéticas”

Cohorte Objetivo



Cohorte Resultado



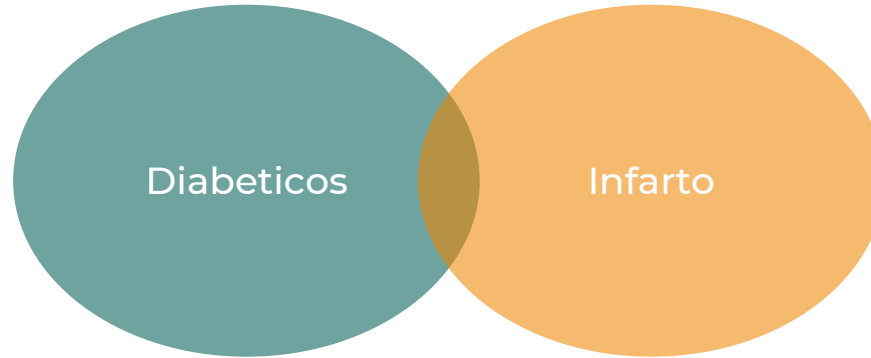
— ¿Qué es una cohorte?

Las cohortes se construyen por bloques independientes:

“Riesgo de infarto en personas diabéticas”

Cohorte Objetivo

Cohorte Resultado



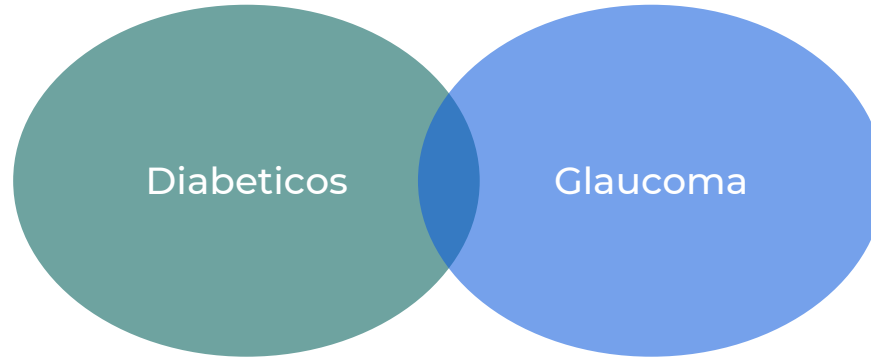
— ¿Qué es una cohorte?

Las cohortes se construyen por bloques independientes.

Permite la *reutilización* de las cohortes para otros estudios

Cohorte Objetivo

Cohorte Resultado



— ¿Qué es una cohorte?

Una cohorte es **análoga a un conjunto de códigos clínicos** específicos (por ejemplo, ICD-9/ICD-10, NDC, HCPCS, etc).

— ¿Qué es una cohorte?

Una cohorte es ~~análoga a un conjunto de códigos clínicos~~ específicos (por ejemplo, ICD-9/ICD-10, NDC, HCPCS, etc).

Tenemos que preguntarnos lo siguiente:

1. *¿Qué evento inicial define el momento de entrada en la cohorte (Index Date)?*
2. *¿Qué criterios de inclusión se aplican a los eventos iniciales?*
3. *¿Qué define el momento de salida de la cohorte?*

— ¿Qué es una cohorte?

Una cohorte es ~~análoga a un conjunto de códigos clínicos~~ específicos (por ejemplo, ICD-9/ICD-10, NDC, HCPCS, etc).

Tenemos que preguntarnos lo siguiente:

1. ¿Qué evento inicial define el momento de entrada en la cohorte (Index Date)?

Primer diagnóstico de diabetes de una persona

2. ¿Qué criterios de inclusión se aplican a los eventos iniciales?

Mayores de 18, con un historial médico de por lo menos un año

3. ¿Qué define el momento de salida de la cohorte?

Final del periodo de estudio o censura (cambio de centro sanitario)

— ¿Qué es una cohorte?

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Mayores de 18, con un historial médico de por lo menos un año

3. ¿Qué define el momento de salida de la cohorte?

Final del periodo de estudio o censura (cambio de centro sanitario)

¿Y si la persona vuelve?

— ¿Qué es una cohorte?

Estructura básica de una cohorte:

cohort_definition_id	subject_id	cohort_start_date	cohort_end_date
1	5670	2018-02-20	2021-03-02
1	3224	2015-06-13	2020-06-23

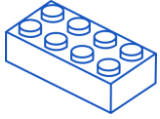
— ¿Qué es una cohorte?

Hay que definir bien los conceptos que conformarán nuestra cohorte

¿Qué es ser diabético?

— ¿Qué es una cohorte?

Hay que definir bien los conceptos que conformarán nuestra cohorte



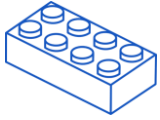
Condiciones

¿Qué es ser diabético?

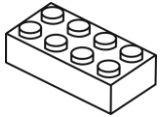
- Tener un diagnóstico de diabetes mellitus

¿Qué es una cohorte?

Hay que definir bien los conceptos que conformarán nuestra cohorte



Condiciones



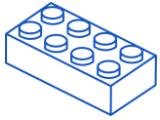
Mediciones

¿Qué es ser diabético?

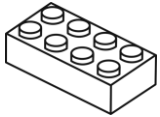
- Tener un diagnóstico de diabetes mellitus,
 - Tener unos niveles de HbA1c > 7.0

¿Qué es una cohorte?

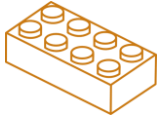
Hay que definir bien los conceptos que conformarán nuestra cohorte



Condiciones



Medicaciones



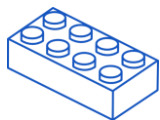
Fármacos

¿Qué es ser diabético?

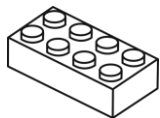
- Tener un diagnóstico de diabetes mellitus,
 - Tener unos niveles de HbA1c > 7.0,
- Tomar metformina durante los últimos 3 meses

¿Qué es una cohorte?

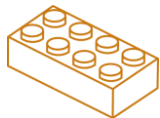
Hay que definir bien los conceptos que conformarán nuestra cohorte



Condiciones



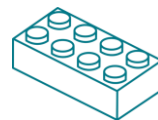
Medicines



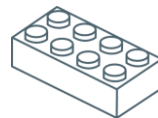
Fármacos

¿Qué es ser diabético?

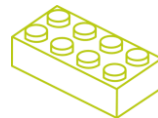
- Tener un diagnóstico de diabetes mellitus,
 - Tener unos niveles de HbA1c > 7.0,
- Tomar metformina durante los últimos 3 meses



Procedimientos



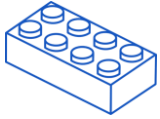
Observaciones



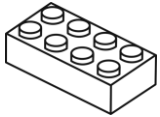
Visitas

¿Qué es una cohorte?

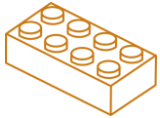
Hay que definir bien los conceptos que conformarán nuestra cohorte



Condiciones



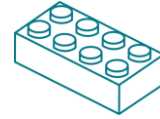
Mediciones



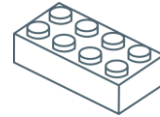
Fármacos

¿Qué es ser diabético?

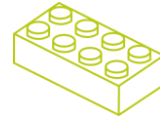
- Tener un diagnóstico de diabetes mellitus,
 - Tener unos niveles de HbA1c > 7.0,
- Tomar Metformina durante los últimos 3 meses
 - ¿Diabetes gestacional? ¡No! -> Excluimos



Procedimientos



Observaciones



Visitas

— ¿Qué es una cohorte?


Hay que definir bien los conceptos que conformarán nuestra cohorte

¿Qué es ser diabético?

Concept Id	Concept Name	Excluded	Descendants
201820	Diabetes mellitus	NO	YES
4024659	Gestational diabetes mellitus	YES	YES

Herramientas para facilitar el phenotyping

[ATHENA](#) es una base de datos con capacidad de búsqueda que está disponible para los investigadores para ayudar a identificar códigos y relacionarlos con su equivalente estándar de OMOP. <https://athena.ohdsi.org/search-terms/start>

ATHENA

SEARCH

DOWNLOAD

LOGIN

?

SEARCH BY KEYWORD

diabetes mellitus

diabetes mellitus x

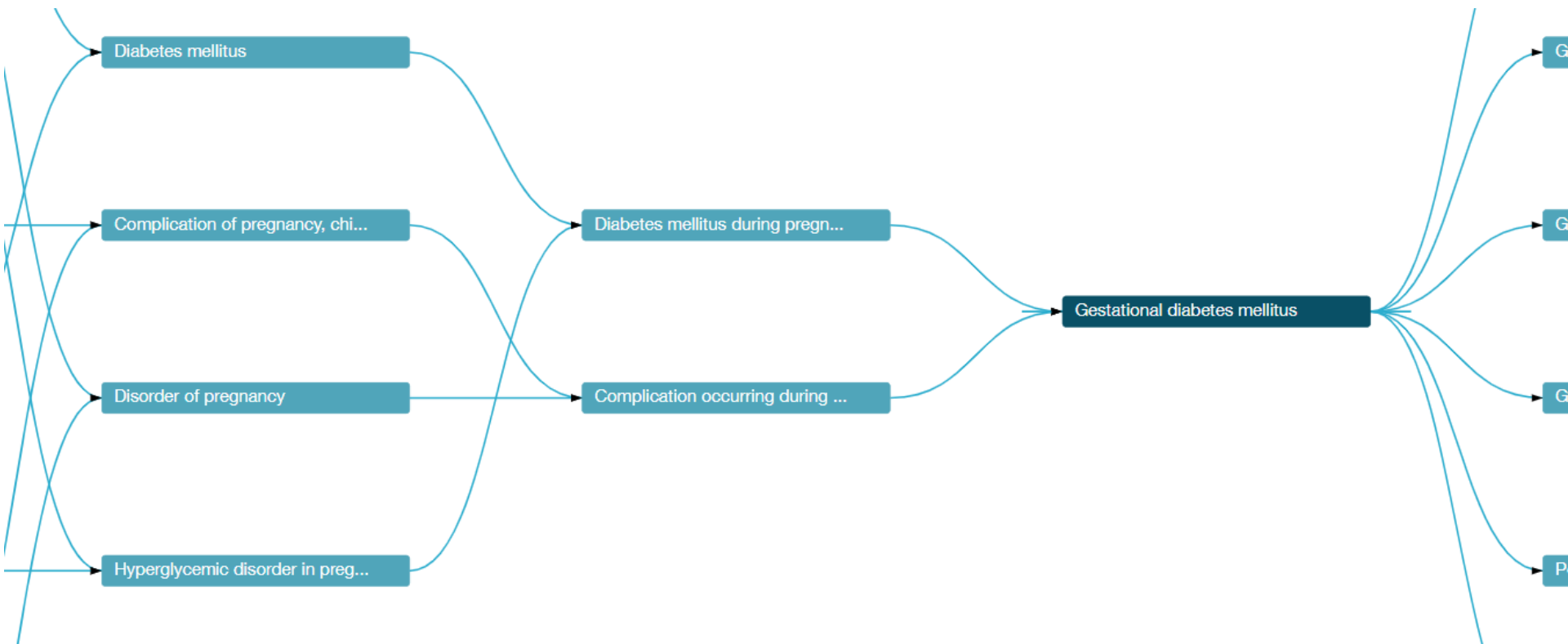
DOWNLOAD RESULTS

Show by 15 items Total 10,785 items

1 2 3 4 5 ... 719 >

	ID	CODE	NAME	CLASS	CONCEPT	VALIDITY	DOMAIN	VOCAB
DOMAIN								
CONCEPT								
CLASS								
VOCAB								
VALIDITY								
	201820	73211009	Diabetes mellitus	Disorder	Standard	Valid	Condition	SNOMED
	40389543	191044006	Diabetes mellitus	Disorder	Non-standard	Invalid	Condition	SNOMED
	4024659	11687002	Gestational diabetes mellitus	Disorder	Standard	Valid	Condition	SNOMED
	36713275	530558861000132104	Atypical diabetes mellitus	Disorder	Standard	Valid	Condition	SNOMED
	4212631	57886004	Protein-deficient diabetes mellitus	Disorder	Standard	Valid	Condition	SNOMED
	4201922	315216001	Diabetes mellitus excluded	Context-dependent	Standard	Valid	Observation	SNOMED

ATHENA



Herramientas para facilitar el phenotyping

[ATLAS](#) es una herramienta intuitiva de OHDSI en formato web. Atlas cuenta con las herramientas necesarias para realizar análisis en tiempo real utilizando datos observacionales a nivel de paciente. <https://atlas-demo.ohdsi.org/#/home>

The screenshot displays the ATLAS web application interface. On the left is a dark teal sidebar with the 'ATLAS' logo at the top and a list of navigation items: Home, Data Sources, Search, Concept Sets, Cohort Definitions, Characterizations, Cohort Pathways, Incidence Rates, Profiles, Estimation, Prediction, Reusables, Jobs, Configuration, and Feedback. The main content area has a dark teal header with 'Home' and a language dropdown set to 'English'. Below the header, the main content area is white and contains a welcome message, documentation link, and a 'Getting Started' section with two green buttons: 'Define a New Cohort' and 'Search the Vocabulary'. At the bottom, there is a 'Release Notes' section for ATLAS Version 2.12.1, listing several updates and bug fixes.

ATLAS

Home

Data Sources

Search

Concept Sets

Cohort Definitions

Characterizations

Cohort Pathways

Incidence Rates

Profiles

Estimation

Prediction

Reusables

Jobs

Configuration

Feedback

Home

Welcome to ATLAS.

ATLAS is an open source application developed as a part of [OHDSI](#) intended to provide a unified interface to patient level data and analytics.

Documentation

The ATLAS user guide can be found [here](#).

Getting Started

Define a New Cohort

Begin performing research by defining the group of people you intend to study

Search the Vocabulary

Search the different ontologies used to describe patient level data around the world

Release Notes

[ATLAS Version 2.12.1 Release Notes](#)

[WebAPI Version 2.12.1 Release Notes](#)

This latest release contains **10** feature enhancements and issue resolutions:

- Executing a Cohort Pathway on an IBM Netezza Data Source fails while creating a temp table
- Heracles reports do not insert final results when using Spark
- /ddl/achilles endpoint is closed by authentication
- PLP package generated by WebAPI v2.12.0 fails on renv
- 403 error when removing IR generation result not displaying properly

Herramientas para facilitar el phenotyping

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ATLAS

[Advanced Options](#)

Show entries

Showing 1 to 25 of 528 entries

☒ Vocabulary

☒ SNOMED (991)

☐ ICD10CM (642)

☐ Nebraska Lexicon (640)

☐ Read (379)

☒ Class

☐ Clinical Finding (1364)

☐ Read (379)

☐ 7-char billing code (260)

☐ KCD7 code (241)

☒ Domain

☒ Condition (2878)

☐ Observation (276)

☐ Procedure (31)

☐ Measurement (16)

☒ Standard Concept

☐ Non-Standard (2612)

☒ Standard (598)

☐ Classification (4)

☒ Invalid Reason

☒ Valid (2613)

☐ Invalid (601)

<input checked="" type="checkbox"/>	Id	Code	Name	Class	RC	DRC	PC	DPC	Domain	Vocabulary
<input checked="" type="checkbox"/>	442793	74627003	Complication due to diabetes mellitus	Clinical Finding	40	2,118	40	1,438	Condition	SNOMED
<input checked="" type="checkbox"/>	201820	73211009	Diabetes mellitus	Clinical Finding	1	6,531	1	1,214	Condition	SNOMED
<input checked="" type="checkbox"/>	201826	44054006	Type 2 diabetes mellitus	Clinical Finding	5,713	5,713	749	749	Condition	SNOMED
<input checked="" type="checkbox"/>	443732	422014003	Disorder due to type 2 diabetes mellitus	Clinical Finding	264	1,171	157	712	Condition	SNOMED
<input checked="" type="checkbox"/>	40482801	443694000	Type II diabetes mellitus uncontrolled	Clinical Finding	957	957	376	376	Condition	SNOMED
<input checked="" type="checkbox"/>	443730	422088007	Disorder of nervous system due to diabetes mellitus	Clinical Finding	25	495	24	347	Condition	SNOMED
<input checked="" type="checkbox"/>	443767	25093002	Disorder of eye due to diabetes mellitus	Clinical Finding	132	440	95	314	Condition	SNOMED
<input checked="" type="checkbox"/>	435216	420868002	Disorder due to type 1 diabetes mellitus	Clinical Finding	93	348	66	267	Condition	SNOMED
<input checked="" type="checkbox"/>	195771	8801005	Secondary diabetes mellitus	Clinical Finding	351	351	234	234	Condition	SNOMED
<input checked="" type="checkbox"/>	201254	46635009	Type 1 diabetes mellitus	Clinical Finding	466	466	230	230	Condition	SNOMED
<input checked="" type="checkbox"/>	321822	421895002	Peripheral vascular disorder due to diabetes mellitus	Clinical Finding	23	304	22	213	Condition	SNOMED
<input checked="" type="checkbox"/>	376065	421326000	Disorder of nervous system due to type 2 diabetes mellitus	Clinical Finding	300	334	184	212	Condition	SNOMED
<input checked="" type="checkbox"/>	192279	127013003	Disorder of kidney due to diabetes mellitus	Clinical Finding	22	361	22	195	Condition	SNOMED
<input checked="" type="checkbox"/>	4082346	238981002	Disorder of soft tissue due to diabetes mellitus	Clinical Finding	0	281	0	191	Condition	SNOMED

☐ Exclude ☒ Descendants ☐ Mapped

Concept Set #1883462

created by anonymous on 2024-04-06 11:39, modified by anonymous on 2024-04-06 11:39

Diabetes_mellitus



Optimize



Concept Set Expression

Included Concepts 137

Included Source Codes

Recommend

Explore Evidence

Export

Import

Compare

Versions

Messages

Enter the concept set description here

Show 50 entries

Filter:




Showing 1 to 1 of 1 entries

Previous 1 Next

<input type="checkbox"/>	Concept Id	Concept Code	Concept Name	Domain	Standard Concept Caption	<input type="checkbox"/> Exclude	<input checked="" type="checkbox"/> Descendants	<input type="checkbox"/> Mapped
<input type="checkbox"/>	201820	73211009	Diabetes mellitus	Condition	Standard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remove Selected

Add Concepts

 Classification  Non-Standard  Standard

ATLAS

Concept Set #1883462

created by anonymous on 2024-04-06 11:39, modified by anonymous on 2024-04-06 11:41

Diabetes_mellitus



Optimize



Concept Set Expression

Included Concepts 130

Included Source Codes

Recommend

Explore Evidence

Export

Import

Compare

Versions

Messages

Enter the concept set description here

Show 50 entries

Showing 1 to 2 of 2 entries

<input type="checkbox"/>	Concept Id	Concept Code	Concept Name	Domain	Standard Concept Caption	<input type="checkbox"/> Exclude	<input checked="" type="checkbox"/> Descendants	<input type="checkbox"/> Mapped
<input checked="" type="checkbox"/>	4024659	11687002	Gestational diabetes mellitus	Condition	Standard	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	201820	73211009	Diabetes mellitus	Condition	Standard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Filter: Search

Previous 1 Next

Remove Selected

Add Concepts

Classification Non-Standard Standard

ATLAS

Concept Set #1883462

created by anonymous on 2024-04-06 11:39, modified by anonymous on 2024-04-06 11:41

Diabetes_mellitus

Optimize

Concept Set Expression

Included Concepts 130

Included Source Codes

Recommend

Explore Evidence

Export

Import

Compare

Versions

Messages

Show columns

Copy

CSV

Show 50 entries

Filter:

Previous 1 2 3 Next

Vocabulary

SNOMED (117)

Nebraska Lexicon (8)

OMOP Extension (5)

Class

Clinical Finding (130)

Domain

Condition (130)

Standard Concept

Standard (130)

Invalid Reason

Valid (130)

Has Records

false (126)

true (4)

Has Descendant Records

false (126)

true (4)

Showing 1 to 50 of 130 entries

<input type="checkbox"/>	Id	Code	Name	Class	RC	DRC	Domain	Vocabulary	Ancestors
<input checked="" type="checkbox"/>	36715051	720519003	Atherosclerosis, deafness, diabetes, epilepsy, nephropathy syndrome	Clinical Finding	0	0	Condition	SNOMED	1
<input checked="" type="checkbox"/>	36713275	530558861000132104	Atypical diabetes mellitus	Clinical Finding	0	0	Condition	SNOMED	1
<input checked="" type="checkbox"/>	36715417	721088003	DEND syndrome	Clinical Finding	0	0	Condition	SNOMED	1
<input checked="" type="checkbox"/>	4129516	237619009	Diabetes-deafness syndrome maternally transmitted	Clinical Finding	0	0	Condition	SNOMED	1
<input checked="" type="checkbox"/>	201820	73211009	Diabetes mellitus	Clinical Finding	1	6,531	Condition	SNOMED	0
<input checked="" type="checkbox"/>	4322638	70694009	Diabetes mellitus AND insipidus with optic atrophy AND deafness	Clinical Finding	0	0	Condition	SNOMED	1
<input checked="" type="checkbox"/>	4143529	426705001	Diabetes mellitus associated with cystic fibrosis	Clinical Finding	0	0	Condition	SNOMED	1
<input checked="" type="checkbox"/>	4245270	5969009	Diabetes mellitus associated with genetic syndrome	Clinical Finding	0	0	Condition	SNOMED	1
<input checked="" type="checkbox"/>	4240589	59079001	Diabetes mellitus associated with hormonal etiology	Clinical Finding	0	0	Condition	SNOMED	1
<input checked="" type="checkbox"/>	4178452	51002006	Diabetes mellitus associated with pancreatic disease	Clinical Finding	0	0	Condition	SNOMED	1
<input checked="" type="checkbox"/>	4178790	42954008	Diabetes mellitus associated with receptor abnormality	Clinical Finding	0	0	Condition	SNOMED	1

Cohort Definitions

[New Cohort](#)

Show columns Copy CSV Show 50 entries

Filter: Search...

Showing 1 to 50 of 16,022 entries

Previous 1 2 3 4 5 ... 321 Next

Created

2+ Weeks Ago (15865)
Last Week (114)
This Week (37)
Within 24 Hours (6)

Updated

2+ Weeks Ago (15853)
Last Week (124)
This Week (38)
Within 24 Hours (7)

Author

anonymous (15933)
demo (89)

Designs

Other designs (16022)

Id	Name	Created	Updated	Author
1789380	Cohort DOAC	04/05/2024 10:16 PM	04/06/2024 8:59 AM	anonymous
1789369	New users of ACE inhibitors who have a prior diag of HT	04/04/2024 4:31 PM	04/06/2024 5:03 AM	anonymous
1789384	[RC] naltrexone OUD 0405	04/06/2024 12:18 AM	04/06/2024 12:18 AM	anonymous
1789383	[RC] buprenorphine OUD 0405	04/06/2024 12:17 AM	04/06/2024 12:18 AM	anonymous
1789381	[RC] methadone OUD 0405	04/05/2024 11:39 PM	04/06/2024 12:17 AM	anonymous
1789382	Patients with Depression	04/05/2024 11:44 PM	04/05/2024 11:44 PM	anonymous
1789379	Cohort warfarin	04/05/2024 10:14 PM	04/05/2024 10:14 PM	anonymous
1789367	MI12 Zus	04/04/2024 9:29 AM	04/05/2024 10:51 AM	anonymous
1789378	New users who take Glyburide as a first line treatment for Type II diabetes	04/05/2024 9:21 AM	04/05/2024 9:21 AM	anonymous
1789377	New users who take Metformin as a first line treatment for Type II diabetes	04/05/2024 9:04 AM	04/05/2024 9:04 AM	anonymous
1789202	ALL [CohortLibrary]	03/21/2024 3:03 PM	04/05/2024 8:05 AM	anonymous
1789376	df	04/05/2024 2:16 AM	04/05/2024 2:16 AM	anonymous
1789375	Metastatic PCa	04/05/2024 12:18 AM	04/05/2024 12:18 AM	anonymous
1789374	Temp	04/04/2024 11:00 PM	04/04/2024 11:00 PM	anonymous
1789373	TEST Hospitalizations among viral sinusitis versus asthma	04/04/2024 10:34 PM	04/04/2024 10:34 PM	anonymous
1789372	N	04/04/2024 10:03 PM	04/04/2024 10:03 PM	anonymous
1789371	Primary Shoulder Arthroplasty (rTSA_TSA)	04/04/2024 7:56 PM	04/04/2024 7:56 PM	anonymous
1789370	Academy X cohort definition	04/04/2024 4:42 PM	04/04/2024 4:45 PM	anonymous
1789368	New Cohort Definition testtesttest	04/04/2024 3:22 PM	04/04/2024 3:22 PM	anonymous
1789343	Cohort Test 15	04/01/2024 11:49 AM	04/04/2024 10:46 AM	anonymous
1789366	Pca Newly Dx abaj	04/03/2024 10:10 PM	04/03/2024 10:10 PM	anonymous

ATLAS

New Cohort Definition

New Cohort Definition

The name of the cohort definition should differ from the default one.

Definition

Concept Sets

Generation

Samples

Reporting

Export

Versions

Messages

1

Enter a cohort definition description here

Cohort Entry Events

Events having any of the following criteria:

+ Add Initial Event... ▾

with continuous observation of at least

0 ▾

 days before and

0 ▾

 days after event index date

Limit initial events to:

earliest event ▾

 per person.

Restrict initial events

Inclusion Criteria

New inclusion criteria

Limit qualifying events to:

earliest event ▾

 per person.

Cohort Exit

Event Persistence:

Event will persist until:

end of continuous observation ▾

Censoring Events:

Exit Cohort based on the following criteria:

+ Add Censoring Event... ▾

No censoring events selected.

ATLAS

New Cohort Definition

New Cohort Definition

 The name of the cohort definition should differ from the default one.

Definition

Concept Sets

Generation

Samples

Reporting

Export

Versions

Messages

2

Enter a cohort definition description here

Cohort Entry Events

Events having any of the following criteria:

with continuous observation of at least days before and days after event index date

Limit initial events to: per person.

Restrict initial events

Inclusion Criteria

New inclusion criteria

Limit qualifying events to: per person.

Cohort Exit

Event Persistence:

Event will persist until:

Censoring Events:

Exit Cohort based on the following criteria:

No censoring events selected.

+ Add Initial Event...

Add Condition Era

Find patients with specific diagnosis era.

Add Condition Occurrence

Find patients with specific diagnoses.

Add Death

Find patients based on death.

Add Device Exposure

Find patients based on device exposure.

Add Dose Era

Find patients with dose eras.

Add Drug Era

Find patients with exposure to drugs over time.

Add Drug Exposure

Find patients with exposure to specific drugs or drug classes.

Add Measurement

Find patients based on Measurement.

Add Observation

Find patients based on observations.

Add Observation Period

Find patients based on Observation Period.

Add Payer Plan Period

Find patients based on Payer Plan Period.

Add Procedure Occurrence

Cohort Entry Events ?

Events having any of the following criteria:

a condition era of

Any Condition ▾

+ Add attribute... ▾

Delete Criteria

Search...

Import Concept Set

Clear Concept Set

Restrict initial events

with c days before and 0 ▾ days after event index date

Limit person.

ATLAS

Cohort Entry Events

Events having any of the following criteria:

a condition era of **Any Condition**

with a condition era of **Any Condition**

Limit **0** days before and **0** days after

Restrict initial events

Search...

Import Concept Set

Clear Concept Set

Import Concept Set From Repository...

Show columns Copy CSV Show 25 entries

Filter: Search...

Previous 1 2 3 4 5 ... 936 Next

Showing 1 to 25 of 23,377 entries

Created	Name	Created	Updated	Author
2+ Weeks Ago (23244)				
Last Week (109)	1883462 Diabetes mellitus	04/06/2024 11:39 AM	04/06/2024 11:41 AM	anonymous
This Week (22)				
Within 24 Hours (2)	1883461 [RC] Opioid Overdose	04/05/2024 11:43 PM	04/05/2024 11:43 PM	anonymous
2+ Weeks Ago (23240)				
Last Week (109)	1883460 NHL IncRate [globocan definition]	04/05/2024 11:54 AM	04/05/2024 2:35 PM	anonymous
This Week (24)				
Within 24 Hours (4)	1883453 MM [globocan definition.]	04/04/2024 10:03 AM	04/05/2024 2:18 PM	anonymous
2+ Weeks Ago (23318)				
Last Week (59)	1883459 Depression	04/05/2024 8:46 AM	04/05/2024 8:58 AM	anonymous
This Week (23377)				
Within 24 Hours (23377)	1883458 Glyburide	04/05/2024 8:43 AM	04/05/2024 8:57 AM	anonymous
	1883457 Metformin	04/05/2024 8:37 AM	04/05/2024 8:37 AM	anonymous
	1882435 Type II diabetes	11/09/2023 9:54 PM	04/05/2024 8:33 AM	anonymous
		04/05/2024 1:45	04/05/2024 1:52	

New Concept Set

dd Initial Event...

delete Criteria

Cohort Entry Events



Events having any of the following criteria:

a condition occurrence of

Diabetes_mellitus



+ Add attribute...

Delete Criteria

with continuous observation of at least 0 days before and 0 days after event index date

Limit initial events to: earliest event per person.

Restrict initial events

Cohort Entry Events ?

Events having any of the following criteria:

a condition occurrence of

Diabetes

+

Add attribute...

✗

for the first time in the person's history

✗

with age

Greater Than

17

+

Add Initial Event...

Delete Criteria

a drug exposure of

Metformin

+

Add attribute...

✗

for the first time in the person's history

✗

with age

Greater Than

17

+

Add Initial Event...

Delete Criteria

with continuous observation of at least

365

 days before and

0

 days after event index date

Limit initial events to:

earliest event

 per person.

Restrict initial events

Cohort Entry Events ?

Events having any of the following criteria:

+ Add Initial Event... ▼

+ Add attribute... ▼

Delete Criteria

a condition occurrence of

Diabetes ▼

✗

 for the first time in the person's history

✗

 with age

Greater Than ▼

17

+ Add attribute... ▼

Delete Criteria

a drug exposure of

Metformin ▼

✗

 for the first time in the person's history

✗

 with age

Greater Than ▼

17

with continuous observation of at least

365 ▼

 days before and

0 ▼

 days after event index date

Limit initial events to:

earliest event ▼

 per person.

Restrict initial events

Cohort Entry Events



Events having any of the following criteria:

+ Add Initial Event... ▾

a condition occurrence of **Diabetes** ▾

+ Add attribute... ▾

Delete Criteria

✗ for the first time in the person's history

✗ with age **Greater Than** ▾ **17**

a drug exposure of **Metformin** ▾

+ Add attribute... ▾

Delete Criteria

✗ for the first time in the person's history

✗ with age **Greater Than** ▾ **17**

with continuous observation of at least **365** ▾ days before and **0** ▾ days after event index date

Limit initial events to: **earliest event** ▾ per person.

Restrict initial events

- all events
- earliest event**
- latest event



ATLAS

Inclusion Criteria



New inclusion criteria

Has no prior antidiabetic drug exposures in prior history

Copy

Delete

1. Has no prior antidiabetic drug exposures in prior history

enter an inclusion rule description

having of the following criteria:

+ Add criteria to group...▼

with using occurrences of:

a drug exposure of

+ Add attribute...▼

where between

days and days [add additional constraint](#)

The index date refers to the event from the Cohort Entry criteria.

☐ restrict to the same visit occurrence

☐ allow events from outside observation period

Delete Criteria

Limit qualifying events to: per person.

Wash out period

ATLAS

Inclusion Criteria

New inclusion criteria

1. Has no prior antidiabetic drug exposures in prior history

2. Is only taking Metformin as monotherapy, with no concomitant combination treatments

Is only taking Metformin as monotherapy, with no concomitant combination treatments

CopyDelete

enter an inclusion rule description

havingallof the following criteria:

+ Add criteria to group...

withexactly1using distinctStandard Concept

a drug era ofAntidiabetic drugs

+ Add attribute...

whereevent startsbetween

0days Beforeand7days Afterindex start dateadd additional constraint

The index date refers to the event from the Cohort Entry criteria.

☐ allow events from outside observation period

Limit qualifying events to:earliest eventper person.

Event Persistence:

Event will persist until:

Censoring Events:

Exit Cohort based on the following criteria:

No censoring events selected.

+ Add Censoring Event... ▾

Event Persistence:

Event will persist until:

Continuous Exposure Persistence:

Specify a concept set that contains one or more drugs. A drug era will be derived from all drug exposure events for any of the drugs within the concept set, using the specified persistence window as a maximum allowable gap in days between successive exposure events and adding a specified surveillance window to the final exposure event. If no exposure event end date is provided, then an exposure event end date is inferred to be event start date + days supply in cases when days supply is available or event start date + 1 day otherwise. This event persistence assures that the cohort end date will be no greater than the drug era end date.

Concept set containing the drug(s) of interest:

- Persistence window: allow for a maximum of days between exposure records when inferring the era of persistence exposure
- Surveillance window: add days to the end of the era of persistence exposure as an additional period of surveillance prior to cohort exit.
- Use days supply and exposure end date for exposure duration. [change](#)

Censoring Events:

Exit Cohort based on the following criteria:

+ Add Censoring Event...

No censoring events selected.

Si hay una **interrupción en la exposición al medicamento**, el paciente **sale de la cohorte** en ese momento, ya que no se puede determinar qué sucedió durante la interrupción.

También podemos establecer un criterio en **la ventana de persistencia** para especificar un espacio permitido entre exposiciones a medicamentos



¡Ya tenemos nuestra cohorte preparada!

Diabetics

Cohort Entry Events

People with continuous observation of 365 days before event may enter the cohort when observing any of the following:

1. condition occurrence of 'Diabetes' for the first time in the person's history, who are > 17 years old.
2. drug exposure of 'Metformin' for the first time in the person's history, who are > 17 years old.

Limit cohort entry events to the earliest event per person.

Inclusion Criteria

1. Has no prior antidiabetic drug exposures in prior history

Entry events having exactly 1 drug exposure of 'Antidiabetic drugs', starting between all days before and 1 days after cohort entry start date.

2. Is only taking Metformin as monotherapy, with no concomitant combination treatments

Entry events having exactly 1 distinct standard concepts from drug era of 'Antidiabetic drugs', starting between 0 days before and 7 days after cohort entry start date.

Cohort Exit

The cohort end date will be based on a continuous exposure to 'Metformin': allowing 30 days between exposures, adding 0 days after exposure ends, and using days supply and exposure end date for exposure duration.

ATLAS

Definition Concept Sets Generation Samples Reporting Export Versions Messages 1

Text View Graphical View JSON SQL

```
{
  "ConceptSets": [
    {
      "id": 0,
      "name": "Diabetes",
      "expression": {
        "items": [
          {
            "concept": {
              "CONCEPT_CLASS_ID": "Clinical Finding",
              "CONCEPT_CODE": "73211009",
              "CONCEPT_ID": 201820,
              "CONCEPT_NAME": "Diabetes mellitus",
              "DOMAIN_ID": "Condition",
              "INVALID_REASON": "V",
              "INVALID_REASON_CAPTION": "Valid",
              "STANDARD_CONCEPT": "S",
```

 Copy to clipboard   Reload

ATLAS

Nom	Data de modificació	Tipus	Mida
New Document de text	6/4/2024 14:09	Document de text	0 kB

New Document de text

Fitxer Edita Visualització

```
},
"occurrence": {
  "isDistinct": true,
  "Type": 0,
  "Count": 1,
  "CountColumn": "DOMAIN_CONCEPT"
}
},
"DemographicCriteriaList": [],
"Groups": []
}
},
"EndStrategy": {
  "CustomEra": {
    "DrugCodesetId": 2,
    "GapDays": 30,
    "Offset": 0
  }
},
"CensoringCriteria": [],
"CollapseSettings": {
  "CollapseType": "ERA",
  "EraPad": 0
},
"CensorWindow": {},
"cdmVersionRange": ">=5.0.0"
}
```

Línia 222, col·l 5.648 caràcters

Anomena i desa

< > ↕ ↗

Escriptori > JSON


Cerca a: JSON

Organitza Crear una carpeta

Inici
Galeria
Irene - Personal
Irene - estudiant

Escriptori
Baixades
Documents
Imatges
Música

Nom	Data de modificació	Tipus	Mida
New Document de text	6/4/2024 14:09	Document de text	0

 ¡Formato .json!

Nom del fitxer: diabeticos.json

Tipus de fitxer: Documents de text (*.txt)

Amaga les carpetes

Codificació: UTF-8

Desa Cancel·la

Vuestro turno

En grupos, cread las siguientes 3 cohortes con la ayuda de ATLAS:

1. Cohorte de diagnósticos de COVID-19
2. Cohorte de tests de COVID-19
3. Cohorte de diagnósticos y tests de COVID-19

Exportad las cohortes en formato .json, y enviad los archivos al siguiente mail:
rwepi.idiapjgol@gmail.com