

# 2025 Phenotype Phebruary Week 3



## Phenotype Phebruary 2025 Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturo	day
		Week 1: Cl	inical Description	s & Prior Work			
A session is pl Al prompt (dev	veloped by @Gowtham_F	descriptions. Participants Rao ) that extracts necess erature search and an exp	Study team's complete clinical description	Office hours	7	8	
phenotype def management)		ecking for pre-existing defi	ets and Logic				
Week 2 – Con     The second w	<b>icept Set and Logic Bui</b> eek focuses on creating t	Iding: the concept sets and build nts already familiar with tu	Study team's complete 1st drafts of cohorts in Atlas				
	. , ,	e. The study leads are exp			13	14	15
• Weeks 3-4 -	Evaluation and Iteratior	1:		& Iterations			
as cohort diag	nostics. Iterations and ref	finements will be made ba	0	Study team's complete cohort review and iterations	hours		
I here is also r these weeks.	nention of showcasing ac	ditional tools and validation	on approaches during			21	22
hatter av //f a ma	un a la da i a va <i>l</i> utat			ools for Evalu			
https://foru updates/20		Community call update & evaluation demos	hebruary-and-work Office hours	cohorts and document evaluation			ohorts are done!
	23	24	25 2	26	27	28	



#### **Phenotype Phebruary 2025 Calendar** Monday Wednesday Thursday Saturday Tuesday Friday Weeł Week 1 results Week 1 - Clinical Description: A session is planned to discuss clinical descriptions. Pa 120 Al prompt (developed by @Gowtham Rao ) that extrac phenotype. This step also includes a literature search a 100 phenotype definitions (for example, checking for pre-exi management). Clinical descriptions for **10** \_ 80 studies • Week 2 – Concept Set and Logic Building: The second week focuses on creating the concept sets **201** phenotype to create of the phenotype. Here, many participants already famil -60 106 sets building are expected to contribute. The study lead **63** available in phenotype 40 Weeks 3–4 – Evaluation and Iteration: library or in other sources The final two weeks are dedicated to evaluating the dev 55 as cohort diagnostics. Iterations and refinements will be 39 20 There is also mention of showcasing additional tools an these weeks. 0 Indication Exposure Outcome https://forums.ohdsi.org/t/ohdsi-phenotype-pheb am's wrap up Community call Office Office All cohorts are updates/20940/69 cohorts and document update & evaluation hours hours done! evaluation demos 28 26 27 23 25 24



## Week 2: creating first cohort definitions

2 office hours7+ individual consultations

Thank you to Azza Shoaibi, Patrick Ryan, Gowtham Rao and Lana Shubinsky and the teams!



омо	PUveitis HSV A	nterior Uveitis-SUN_Vers	ionWAE					•	୯	×		
Def	inition Con	cept Sets Versions	Messages (15)									
					New Concept Set	🛓 Import	🛓 Export All Co	ncept \$	Sets To	o CSV		
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Id 🄶 T	itle									4		
13 (	OMOPUveitis O	ther anterior segment inf	lammation [conditions]									
7 (	OMOPUveitis Re	etinitis exclusion [condition	ons]									
3 (	3 OMOPUveitis Sarcoidosis exclusion [conditions, observations]											
18 (	OMOPUveitis Sy	yphilis exclusion [condition	ons, measurements]									
20 0	DMOPUveitis V	ZV AC PCR positive [mea	surements, specimen]									
Showin	ng 11 to 15 of 15	5 entries					Ł	Previou	s 1	2 Ne		
Conc	Concept Set Expression Included Concepts 6 Included Source Codes Recommend Export Import											
Name	9:											
ОМО	PUveitis Sarco	idosis exclusion [conditio	ns, observations]									
Show	25 ∨ entries						Filter: Sea	arch		,		
Showi	ng 1 to 6 of 6 e	ontries						Previ	ious 1	Nex		
onowi	Concept Id	Concept Code	Concept Name	y Domain	Standard Concept Caption	÷ Exc	clude Descene			pped		
	4281245	66146003	Sarcoid type granuloma	Observation	Standard			]				
	4322821	71282004	Non-necrotizing granulomatous inflammation	Observation	Standard		<ul> <li>✓</li> </ul>	J				
	4081069	238676008	Lofgrens syndrome	Condition	Standard			J				
	4338094	87500009	Hilar lymphadenopathy	Condition	Standard		<ul> <li>✓</li> </ul>	J				
	4163983	45647009	Granuloma	Observation	Standard		<ul> <li>✓</li> </ul>					
	4130903	264508001	Bilateral hilar adenopathy	Condition	Standard		<ul> <li>Image: A start of the start of</li></ul>					



Concept Set Expression	Included Cond	epts  6	Included So	urce Codes	Recommend	Export	Import							
										View re	ecord c	ount for	: Evidence ne	twork counts 🛛 🗸
	Show c	olumns▼	Copy	Show 25	<ul> <li>✓ entries</li> </ul>								Filter: Sear	ch
	Showing	1 to 17 o	f 17 entries											Previous 1 Next
	Id	÷ (	Code 🔶	Name				Class	RC	DRC 🔻	PC	DPC	Domain 🔶	Vocabulary 🔶
Vocabulary SNOMED (9) Nebraska Lexicon (7)	416	3983	45647009	Granuloma				Morph Abnormality	8,380	11,150	1,710	2,190	Observation	SNOMED
OXMIS (1)	43:	38094 8	87500009	Hilar lymph	adenopathy			Disorder	4,830	6,280	2,550	3,320	Condition	SNOMED
T Invalid Reason Valid (13)			264508001		ar adenopathy			Disorder	1,270	·	680		Condition	SNOMED
Invalid (4) T Class	408	31069 2	238676008	Lofgrens sy	ndrome			Disorder	110	110	30	30	Condition	SNOMED
Morph Abnormality (8)	45	531137 (	6861A	GRANULON	AN			OXMIS	0	0	0	0	Observation	OXMIS
Clinical Finding (4) Disorder (4)	432	22821 7	71282004	Non-necrot	izing granulomato	ous inflamma	tion	Morph Abnormality	0	0	0	0	Observation	SNOMED
OXMIS (1) <b>Y</b> Domain	428	31245 (	66146003	Sarcoid typ	e granuloma			Morph Abnormality	0	0	0	0	Observation	SNOMED

Concept Set Expression	Included	Concepts	6 Incluc	led Source Codes Recommer	d Expor	t Import						
									View rec	ord count fo	r: Evidence ne	etwork counts 🗸 🗸
	S	how columns	▼Сору	CSV Show 25 $\checkmark$ entries							Filter: Sea	rch
	Sho	owing 1 to 17	7 of 17 entries									Previous 1 Next
		1	Code	Ame Name			Class	RC	DRC 🚽	PC DPC	Domain 🍦	Vocabulary 🔶
Y Vocabulary SNOMED (9) Nebraska Lexicon (7)		4163983	45647009	Granuloma			Morph Abnormality	8,380	11,150 <sup>-</sup>	1,710 2,190	Observation	SNOMED
OXMIS (1)		4338094	87500009	Hilar lymphadenopathy			Disorder	4,830	6,280 2	,550 3,320	Condition	SNOMED
Valid (13)		4130903	264508001	Bilateral hilar adenopathy	,		Disorder	1,270	1,410	680 730	Condition	SNOMED
Invalid (4)		4081069	238676008	Lofgrens syndrome			Disorder	110	110	30 30	Condition	SNOMED
Concept Set Expression	Included (	Concepts 🤇	6 Include	d Source Codes Recommend	Export	Import						
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	Show	wing 1 to 9 o	f 9 entries								Prev	ious 1 Next
<b>T</b> Vocabulary		ld 🔶	Code 🔶	Name	Class	RC	DRC 🔻	PC	DPC	Domain	Vocabulary	🔶 Count 🖨
SNOMED (40)		315085	30746006	Lymphadenopathy	Disorder	17,342,460	45,546,610	10,224,510	24,710,51	0 Condition	SNOMED	1
TInvalid Reason		438688	31541009	Sarcoidosis	Disorder	7,598,460	9,935,030	716,180	1,134,59	0 Condition	SNOMED	1
Valid (40) <b>T</b> Class		140176	32861005	Ervthema nodosum	Disorder	494,030	498,810	214,860	217,44	0 Condition	SNOMED	1
Morph Abnormality (20)		4274184	64757003	Lymph node sarcoidosis	Disorder	58,730	58,790	17,810	17,84	0 Condition	SNOMED	1
Disorder (18) Clinical Finding (2)		4133466	127101005	Pulmonary lymphadenopathy	Disorder	270	270	110	11	0 Condition	SNOMED	1
<b>T</b> Domain	<b>~</b>	4124546	233767005	Stage 1 pulmonary sarcoidosis	Disorder	90	90	40	4	0 Condition	SNOMED	1
Observation (20) Condition (20)	$\checkmark$	4124671	233768000	Stage 2 pulmonary sarcoidosis	Disorder	60	60	20	2	0 Condition	SNOMED	1
<b>T</b> Relationship	<b>~</b>	4119929	233744008	Hilar lymph node sarcoidosis	Disorder	10	10	10	1	0 Condition	SNOMED	2
Ontology-descendant (20) Ontology-parent (12)	$\checkmark$	4133582	127141001	Renal hilar lymphadenopathy	Disorder	0	0	0		0 Condition	SNOMED	1



OMOPUveitis Sarcoidosis exclusion [conditions, observations]

Show  $25 \sim$  entries

#### Showing 1 to 21 of 21 entries

Filter: Search...

Previous 1 Next

Concept Id  🍦	Concept Code	Concept Name	🗸 Domain 🔶	Standard Concept Caption	Exclude	Descendants	Mapped
4131138	127097001	Thoracic lymphadenopathy	Condition	Standard		$\checkmark$	<b>~</b>
4033215	238675007	Sarcoidosis-induced erythema nodosum	Condition	Standard		$\checkmark$	<b>~</b>
438688	31541009	Sarcoidosis	Condition	Standard		$\checkmark$	
4190954	415359008	Sarcoid uveitis	Condition	Standard		$\checkmark$	<b>~</b>
4191606	39041004	Restrictive cardiomyopathy secondary to sarcoidosis	Condition	Standard		$\checkmark$	
46269691	101401000119103	Pulmonary granuloma	Condition	Standard		$\checkmark$	
4133462	127094008	Pretracheal lymphadenopathy	Condition	Standard		$\checkmark$	
4030501	23794001	Paratracheal lymphadenopathy	Condition	Standard		$\checkmark$	
4322821	71282004	Non-necrotizing granulomatous inflammation	Observation	Standard		$\checkmark$	$\checkmark$
4221669	402374008	Nail dystrophy due to sarcoidosis	Condition	Standard		$\checkmark$	
4002813	203042003	Myositis in sarcoidosis	Condition	Standard		$\checkmark$	
4105005	193101001	Multiple cranial nerve palsies in sarcoidosis	Condition	Standard		$\checkmark$	
4218291	72211003	Laryngeal granuloma	Condition	Standard		$\checkmark$	<b>~</b>
4303055	78574007	Hypothyroidism due to sarcoidosis	Condition	Standard		$\checkmark$	<b>~</b>
4323853	7085002	Hypercalcemia due to sarcoidosis	Condition	Standard		$\checkmark$	
37017895	714253009	Hepatic granuloma	Condition	Standard		$\checkmark$	
4141212	426121003	Granulomatous lymphadenitis	Condition	Standard		$\checkmark$	
4033802	238673000	Granulomatous disorder of the skin and subcutaneous tissue	Condition	Standard		$\checkmark$	
606444	1145001009	Gastritis due to sarcoidosis	Condition	Standard		$\checkmark$	<b>~</b>
606409	1144951005	Esophagitis due to sarcoidosis	Condition	Standard		$\checkmark$	<b>_</b>
4247261	6022005	Dilated cardiomyopathy due to sarcoidosis	Condition	Standard		$\checkmark$	



Concept Set Expression	Included Concepts 207 Included Source Codes Recommend Export Import	
	Show columns▼ Copy CSV Show 25 ✓ entries	View record count for: Evidence network counts
	Showing 1 to 25 of 59 entries	Previous 1 2 3 Next
Vocabulary Read (07) ICD10CM (30) ICD9CM (29)	44822863 135 Sarcoidosis	3-dig billing 3,695,440 3,695,440 0 0 Condition ICD9CM code
KCD7 (24) ICD10 (24) <b>T</b> Invalid Reason	35206837 D86.9 Sarcoidosis, unspecified	4-char billing 3,523,610 3,523,610 0 0 Condition ICD10CM



Definition Concept Sets	Generation Sa	mples Reporting	Export Versions Messages (32)			
	Show columns▼	Copy CSV Show	$50 \lor$ entries			Filter: Search
	Showing 1 to 44 o	f 44 entries				Previous 1 Next
	Version	Author	Created	▼ Comment	Preview	Сору
▼ Created Within 24 Hours (26)	Current	anonymous	02/17/2025 9:37:42 PM			
Last Week (7)	43	anonymous	02/17/2025 9:33:42 PM	Add comment	Preview	Create a copy
2+ Weeks Ago (6) This Week (5)	42	anonymous	02/17/2025 9:27:58 PM	Add comment	Preview	Create a copy
<b>T</b> Author	41	anonymous	02/17/2025 9:24:38 PM	Add comment	Preview	Create a copy



# Week 2 lessons: double check the time frames for exclusion criteria

[PP25 Rheumatology_Infection_Malignancy] [DMARD] first methotrexate	8	×	$\bigcirc$	Ľ	ଜ	Î
Definition Concept Sets Generation Samples Reporting Export Versions Messages 3						
Enter a cohort definition description here						
Cohort Entry Events						?
Events having any of the following criteria:			+ Add	d Initial I	Event	🔻
	ld attri	bute•	-	Delete	Criteria	а
X for the first time in the person's history						
with continuous observation of at least 365 🔻 days before and 0 💌 days after event index date						
Limit initial events to: earliest event $\checkmark$ per person.						
Restrict initial events						
Inclusion Criteria						?
New inclusion criteria						
1. Age 18+						
2. No prior DMARD exposure						



# Week 2 lessons: double check the time frames for exclusion criteria

Inclusion Criteria		?
New inclusion criteria	No prior DMARD exposure	Copy Delete
1. Age 18+	enter an inclusion rule description	
2. No prior DMARD exposure	having all $\sim$ of the following criteria:	+ Add criteria to group
	with $exactly \sim 0$ using all occurrences of:	Delete Criteria
	a drug exposure of methotrexate -	+ Add attribute
	where event starts between	
	All v days Before v and 0 v days Before v index start date 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	



## Week 2 lessons: look at the counts early

Cohort Entry Events	
Events having any of the following criteria:	Inclusion Criteria
a drug era of nivolumab or pembrolizumab ▼ ★ with era length Greater or Equal To √ 357 days with continuous observation of at least 90 ▼ days before and 365 ▼ days after event index date Limit initial events to: all events ♥ per person. Restrict intial events to: having all ♥ of the following criteria:	<ul> <li>New inclusion criteria</li> <li>Surgical excision of primary lesion Include patients with surgical excision of suspected skin lesion to ensure currative</li> <li>Exclusion criteria - other anti- melanoma drugs Ensuring Monotherapy with Nivo/Pembro filtering out patients which recieve anothe</li> </ul>
<pre>with at least \veel 1 \veel using all occurrences of: a condition occurrence of malignant melanoma \veel k having all \veel of the following criteria:</pre>	3. No distant metastasis from melanoma occurence and the end of adjuvant treatment Exclude patients with distant mts to filter out 4 stage of melanoma or progression
with exactly $\checkmark$ 0 $\checkmark$ using all occurrences of: a condition occurrence of Any Condition $\checkmark$ X Condition Source Concept is malignant melanoma in situ $\checkmark$	4. Exclusion creteria - surgical excision after the initiation the investigational treatment Exclude patients which had surgical excision of probable melanoma reccurren
where event starts between • days Before $\checkmark$ and • days After $\checkmark$ index start date add additional constraint The index date refers to the condition occurrence of malignant melanoma.	Limit qualifying events to: all events $\checkmark$ per person.



## Week 2 lessons: look at the counts early

Source Name 🔺	Generation Status 🝦	People 🔶	Records	Generated 🔶	Generation Duration 🔷
Evidence network counts	COMPLETE	0	0	02/10/2025 5:38 PM	00:00:11
Network prevalence counts	COMPLETE	0	0	02/10/2025 5:44 PM	00:00:00
SYNPUF 1K	COMPLETE	0	0	02/18/2025 12:21 AM	00:00:02
SYNPUF 5%	COMPLETE	0	0	02/18/2025 12:21 AM	00:00:17



## Week 2 lessons: look at the counts early

Source Name	Generation Status	People	Records	Generated	Generation Duration
IBM CCAE (v3046)	COMPLETE	36	36	02/13/2025 5:29 AM	00:04:34
Optum EHR + Enrich Oncology (v3037)	COMPLETE	54	54	02/13/2025 5:28 AM	00:04:50
Premier (v3040)	COMPLETE	4	4	02/13/2025 5:29 AM	00:05:27

Showing 1 to 3 of 3 entries

Inclusion Report		

Inclusion Report for Optum EHR + Enrich Oncology (v3037) using 1 event per person

	Match Rate	Matches	Total Events
Summary Statistics:	3.36%	54	1,605

### Having any $\checkmark$ of selected criteria passed $\checkmark$

✓	Inclusion Rule	N	% Satisfied	% To-Gain
<ul><li>✓ 1.</li></ul>	Surgical excision of primary lesion	329	20.50%	6.23%
<b>~</b> 2.	Exclusion criteria - other anti-melanoma drugs	1,123	69.97%	0.19%
<b>&gt;</b> 3.	No distant metastasis from melanoma occurence and the end of adjuvant treatment	176	10.97%	12.90%
<b>V</b> 4.	Exclusion creteria - surgical excision after the initiation the investigational treatment	1,578	98.32%	0.12%



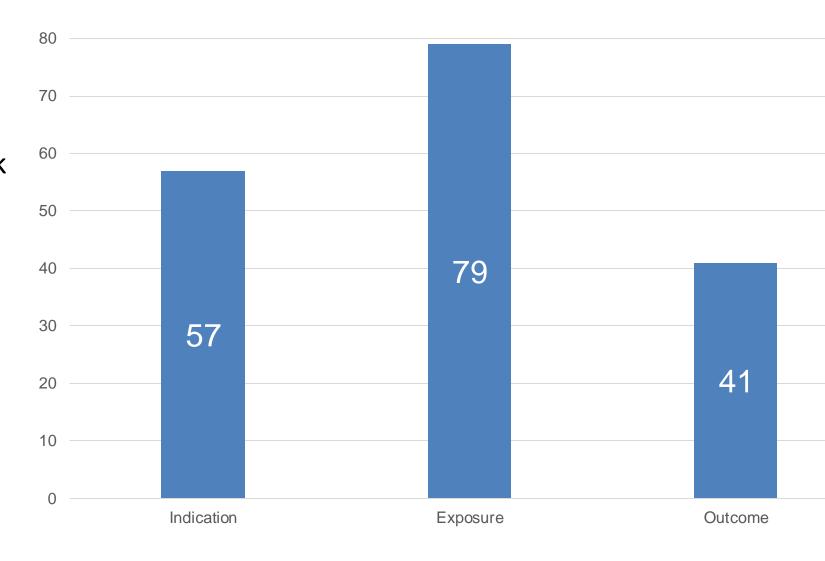
# Week 2: creating first cohort definitions

2 office hours 5+ individual consultations

Thank you to Azza Shoaibi, Patrick Ryan, Gowtham Rao and Lana Shubinsky and the teams!



**177** cohort definition created!





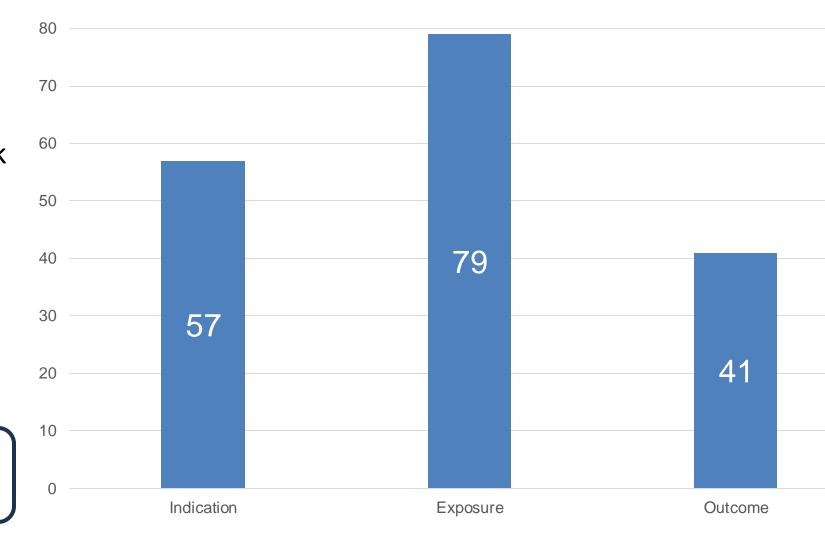
# Week 2: creating first cohort definitions

2 office hours 5+ individual consultations

Thank you to Azza Shoaibi, Patrick Ryan, Gowtham Rao and Lana Shubinsky and the teams!

**177** cohort definition created!

Cohort Diagnostics executed for **91** cohort definition !





## Phenotype Phebruary 2025 Calendar

Monday Saturday Tuesday Wednesday Thursday Friday Week 1: Clinical Descriptions & Prior Work Week 1 – Clinical Description: Office Study team's complete A session is planned to discuss clinical descriptions. Participants are expected to use a Gen clinical description hours Al prompt (developed by @Gowtham Rao ) that extracts necessary information to form a 7 8 phenotype. This step also includes a literature search and an exploration of existing phenotype definitions (for example, checking for pre-existing definitions of AKI or obesity ets and Logic management). Study team's complete • Week 2 – Concept Set and Logic Building: Office 1st drafts of cohorts in The second week focuses on creating the concept sets and building the logical framework hours Atlas of the phenotype. Here, many participants already familiar with tutorial work on concept 14 15 13 sets building are expected to contribute. The study leads are expected to be fully engaged. & Iterations Weeks 3–4 – Evaluation and Iteration: Study team's complete The final two weeks are dedicated to evaluating the developed phenotypes using tools such Office cohort review and as cohort diagnostics. Iterations and refinements will be made based on these diagnostics. hours iterations There is also mention of showcasing additional tools and validation approaches during 21 22 20 these weeks. ools for Evaluation https://forums.ohdsi.org/t/ohdsi-phenotype-phebruary-and-workgroupup Office All cohorts are updates/20940/69 ent hours done! uemos - valuation 27 28 26 23 25



# Using Cohort Diagnostics to assess phenotypes

## Selected text from CAP clinical definition

- Community acquired pneumonia suppose to start in outpatient settings, presents with fever, cough, dyspnea
- Are not interested in pneumonia due to other conditions (HF, HIV, CKD) but interested in pneumonia occurring on top of risk factors (smoking, COPD)
- Incidence of community-acquired pneumonia in the general adult population 1.6 - 13.4 cases per 1,000PY



## What you can do in Cohort Diagnostics

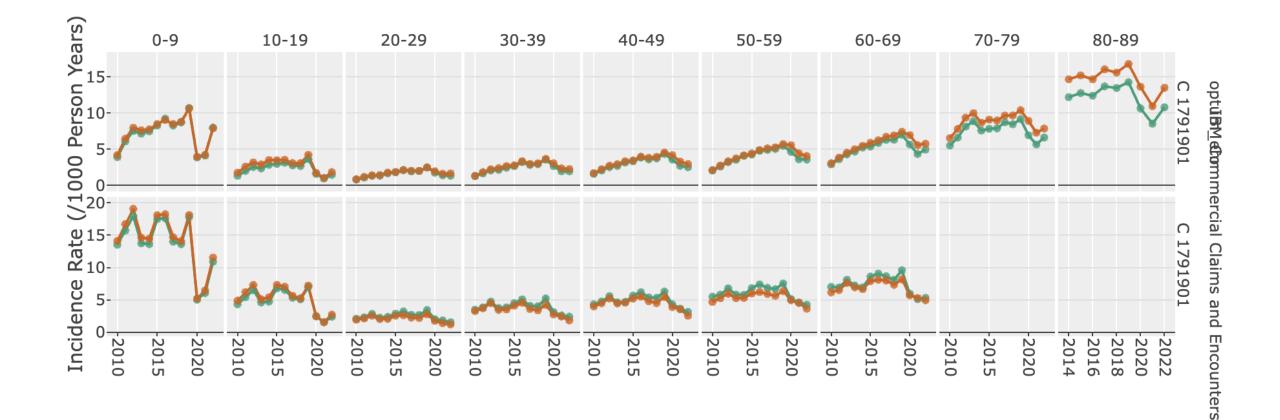
- 1. Cohort counts
- 2. Incidence rates
- 3. Breakdown of index events
- 4. Visits associated with index event
- 5. Patient characteristics
- 6. Compare cohorts



Coho	Cohort Counts +							
		unity acquired pneumonia m unity acquired pneumonia m	-	ated hospitalization				
Displa Bot		<ul> <li>Records</li> </ul>				Search		
		<b>e</b> 1		optum_ehr		mercial Claims and Encounters		
	Cohort Id	Cohort Name	Persons	Records	Persons	Records		
$\bigcirc$	1791901	[PP25 Community ac	2,422,163	2,422,163	2,704,312	2,704,312		
$\bigcirc$	1791902	[PP25 Community ac	309,931	309,931	551,158	551,158		
1–2 0	of 2 rows Show	v 20 ~				Previous <b>1</b> Next Download as CSV		



### Incidence rates across age and gender





### **Incidence rates across age groups**





(2016, 5.267)

Incidence Rate = 5.27/per 1k PY Incidence Proportion = 10.5% Person years = 48,503,827.43

Cohort count = 2,422,163

Count = 255,477

optum\_ehr

1791901 [PP25 Community acquired pneumonia management] CAP

### Index event breakdown

C1791901: [PP25 Community acquired pneumonia management] CAP

Concept type	All 🔘 Standard concepts 💿 Non Standard Concepts			Persons	Show persons as perce	ntage
						Search
					optum_ehr (2,422,163	) IBM Commercia
Concept Id $\ \ \uparrow$	Concept Name 1	Concept Code $\updownarrow$	Domain Field $\updownarrow$	Vocabulary Id $\updownarrow$	Persons 1	Persons 1
35207956	Pneumonia, unspecified organism	J18.9	condition_source_c	ICD10CM	54.4%	23.6%
44829009	Pneumonia, organism unspecified	486	condition_source_c	ICD9CM	45.3%	59.3%
35207953	Lobar pneumonia, unspecified organism	J18.1	condition_source_c	ICD10CM	10.7%	4.1%
35207948	Unspecified bacterial pneumonia	J15.9	condition_source_c	ICD10CM	2.6%	1.7%
44821984	Bacterial pneumonia, unspecified	482.9	condition_source_c	ICD9CM	2.3%	4.8%
44819745	Pneumonia due to other specified organism	483.8	condition_source_c	ICD9CM	1.9%	0.4%
35207952	Bronchopneumonia, unspecified organism	J18.0	condition_source_c	ICD10CM	1.5%	1.3%
44821985	Bronchopneumonia, organism unspecified	485	condition_source_c	ICD9CM	1.0%	3.3%
35207950	Pneumonia due to other specified infectious org	J16.8	condition_source_c	ICD10CM	0.7%	0.4%
35207955	Other pneumonia, unspecified organism	J18.8	condition_source_c	ICD10CM	0.5%	0.6%
44824283	Pneumonia in other infectious diseases classifie	484.8	condition_source_c	ICD9CM	0.5%	0.1%
44830112	Influenza with pneumonia	487.0	condition_source_c	ICD9CM	0.3%	1.5%
35207951	Pneumonia in diseases classified elsewhere	J17	condition_source_c	ICD10CM	0.2%	0.0%

### Visit context

Visit Context

C1791901: [PP25 Community acquired pneumonia management] CAP

#### Display

● All ○ Before ○ During ○ Simultaneous ○ After



			optum_eh	r (2,422,163)		
Visit Concept Name 🗅	Before ↓	During $\updownarrow$		Simultaneous ↓	After 1	Before 1
Outpatient Visit	1,422,575			2,422,163	1,805,019	1,528,355
Emergency Room Visit	207,193			476,026	306,812	130,996
Inpatient Visit	176,394	5,449		412,828	369,402	42,302
Emergency Room and Inpatien	16,090	640		49,436	25,843	16,215
Non-hospital institution Visit	16,101	362		10,582	41,448	2,559
Ambulance Visit						1,431
Telehealth						11,817
Home Visit	11,516				33,301	55,383
Laboratory Visit	73,370				94,226	51,456
Pharmacy visit	153,475				149,098	960,168

Download as CSV

+

## Patient characteristics

Age group	
age group: 0 - 4	8.6%
age group: 5 - 9	6.5%
age group: 10 - 14	3.5%
age group: 15 - 19	2.5%
age group: 20 - 24	2.0%
age group: 25 - 29	2.4%
age group: 30 - 34	3.2%
age group: 35 - 39	3.8%
age group: 40 - 44	4.2%
age group: 45 - 49	4.9%
age group: 50 - 54	6.1%
age group: 55 - 59	7.5%
age group: 60 - 64	8.0%
age group: 65 - 69	7.7%
age group: 70 - 74	7.8%
age group: 75 - 79	10.4%
age group: 80 - 84	8.7%
age group: 85 - 89	2.3%
Gender	
gender = FEMALE	53.4%
gender = MALE	46.6%



				IBM Commercial Claims and Encounters
Covariate Name	Analysis Name	Temporal Choices	Concept Id	Mean
condition_era: Cough	ConditionEraStart	T (-30d to -1d)	254761	9.4%
condition_era: Acute upper respiratory infection	ConditionEraStart	T (-30d to -1d)	257011	6.9%
condition_era: Acute bronchitis	ConditionEraStart	T (-30d to -1d)	260139	5.5%
condition_era: Fever	ConditionEraStart	T (-30d to -1d)	437663	4.8%
condition_era: Acute pharyngitis	ConditionEraStart	T (-30d to -1d)	25297	4.6%
condition_era: Acute sinusitis	ConditionEraStart	T (-30d to -1d)	260123	2.8%
condition_era: Essential hypertension	ConditionEraStart	T (-30d to -1d)	320128	2.7%
condition_era: Viral disease	ConditionEraStart	T (-30d to -1d)	440029	2.7%
condition_era: Dyspnea	ConditionEraStart	T (-30d to -1d)	312437	2.3%
condition_era: Chest pain	ConditionEraStart	T (-30d to -1d)	77670	2.2%
condition_era: Bronchitis	ConditionEraStart	T (-30d to -1d)	256451	2.0%
condition_era: Asthma	ConditionEraStart	T (-30d to -1d)	317009	1.8%
condition_era: Hyperlipidemia	ConditionEraStart	T (-30d to -1d)	432867	1.6%
condition_era: Upper respiratory tract infection due to Influenza	ConditionEraStart	T (-30d to -1d)	46273463	1.5%

## Patient characteristics, dx a month before pneumonia

				optum_ehr
Covariate Name	Analysis Name	Temporal Choices	Concept Id	Меан
condition_era: Essential hypertension	ConditionEraStart	T (-30d to -1d)	320128	8.2%
condition_era: Cough	ConditionEraStart	T (-30d to -1d)	254761	7.6%
condition_era: Hyperlipidemia	ConditionEraStart	T (-30d to -1d)	432867	4.9%
condition_era: Dyspnea	ConditionEraStart	T (-30d to -1d)	312437	4.2%
condition_era: Fever	ConditionEraStart	T (-30d to -1d)	437663	3.7%
condition_era: Acute upper respiratory infection	ConditionEraStart	T (-30d to -1d)	257011	3.7%
condition_era: Type 2 diabetes mellitus without complication	ConditionEraStart	T (-30d to -1d)	4193704	3.4%
condition_era: Chronic obstructive lung disease	ConditionEraStart	T (-30d to -1d)	255573	2.8%
condition_era: Acute bronchitis	ConditionEraStart	T (-30d to -1d)	260139	2.5%
condition_era: Chest pain	ConditionEraStart	T (-30d to -1d)	77670	2.5%
condition_era: Anemia	ConditionEraStart	T (-30d to -1d)	439777	2.2%
condition_era: Gastroesophageal reflux disease without esophagitis	ConditionEraStart	T (-30d to -1d)	4144111	2.1%
condition_era: Atrial fibrillation	ConditionEraStart	T (-30d to -1d)	313217	2.0%
condition_era: Acute pharyngitis	ConditionEraStart	T (-30d to -1d)	25297	2.0%
condition_era: Congestive heart failure	ConditionEraStart	T (-30d to -1d)	319835	1.9%

### **Patient characteristics, labs**

📥 Download

Group by Database	Group by Time Windows		
Sort By		order	
optum_ehr mean	•	○ ascending	cult
		descending	

				optum_ehr
Covariate Name	Analysis Name	Temporal Choices	Concept Id	Mean
measurement: Identification of microorganisms in urine culture	Measurement	T (1d to 365d)	4205241	21.4%
measurement: Aerobic blood culture	Measurement	T (0d to 0d)	4252846	15.1%
measurement: Aerobic blood culture	Measurement	T (1d to 365d)	4252846	12.9%
measurement: Bacterial culture, urine, with colony count	Measurement	T (1d to 365d)	4016363	12.3%
measurement: Culture, bacterial; any other source except urine, blood or stool, aerobic, with isolation and presumptive identification of isolates	Measurement	T (1d to 365d)	2212984	10.8%
measurement: Identification of microorganisms in urine culture	Measurement	T (0d to 0d)	4205241	7.3%
measurement: Microbial culture, aerobic, initial isolation	Measurement	T (1d to 365d)	4170071	6.4%

### **Compare patient characteristics**

**Target Cohort :** [PP25 Community acquired pneumonia management] CAP C1791901 **Comparator Cohort :** [PP25 Community acquired pneumonia management] CAP-associated hospitalization C1791902 Target Database : optum\_ehr Comparator Database : optum\_ehr



Display	values
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● Mean ○ Mean and Standard Deviation

Show only covariates found in target and comparator

### **Temporal Window**

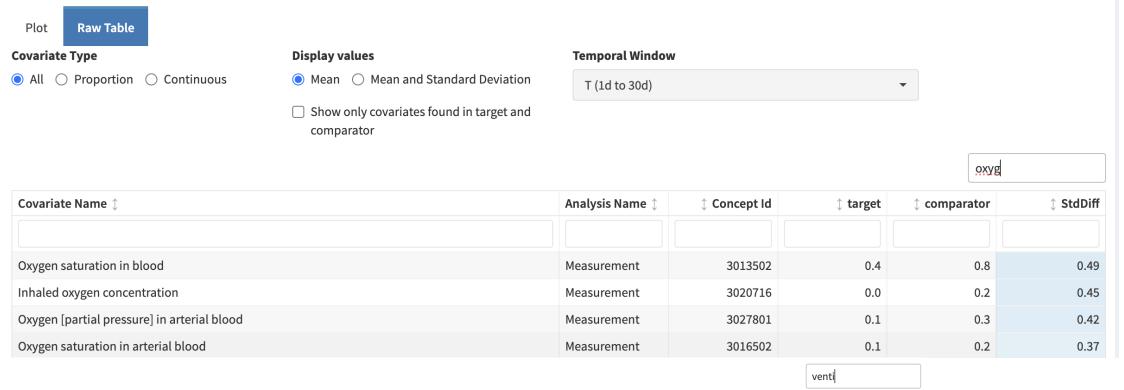
Time invariant

Search

Covariate Name 1	Analysis Name 🗅	Concept Id	‡ target	‡ comparator	1 StdDiff
Charlson index - romano adaptation	CharlsonIndex	0	2.1	4.6	0.62
Chads2vasc	Chads2Vasc	0	2.1	3.6	0.55
Chads2	Chads2	0	1.2	2.4	0.55
Diabetes comorbidity severity index (dcsi)	Dcsi	0	1.6	3.7	0.55
Age in years	DemographicsA	0	49.3	66.0	0.53

### **Compare patient characteristics**

**Target Cohort :** [PP25 Community acquired pneumonia management] CAP C1791901 **Comparator Cohort :** [PP25 Community acquired pneumonia management] CAP-associated hospitalization C1791902 Target Database : optum\_ehr Comparator Database : optum\_ehr



Covariate Name $\downarrow$	Analysis Name 🗅	Concept Id	‡ target	$\ensuremath{\updownarrow}$ comparator	1 StdDiff
Respiratory ventilation, greater than 96 consecutive hours	ProcedureOccu	2788038	0.0	0.0	0.16
Respiratory ventilation, 24-96 consecutive hours	ProcedureOccu	2788037	0.0	0.0	0.14

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Plot

Raw Table

## **Compare patient characteristics**

**Target Cohort :** [PP25 Community acquired pneumonia management] CAP C1791901 **Comparator Cohort :** [PP25 Community acquired pneumonia management] CAP-associated hospitalization C1791902 Target Database : optum\_ehr Comparator Database : optum\_ehr

Covariate Type	Display values	Temporal Window				
All 🔿 Proportion 🔿 Continuous	Mean	T (1d to 30d)		•		
	<ul> <li>Show only covariates found in target and comparator</li> </ul>					
					cort	
Covariate Name 🗘		Analysis Name 🗘	↓ Concept Id	¢ target	cort ↓ comparator	1 StdDiff
Covariate Name 🗘		Analysis Name 1	1 Concept Id	target	· · · · ·	û StdDiff
Covariate Name ‡ Corticosteroids for systemic use, combination	ns	Analysis Name DrugEraGroupO	<ul> <li>Concept Id</li> <li>21602745</li> </ul>	<pre>     target     0.3 </pre>	· · · · ·	û StdDif



### Study leads & Anybody who wants to participate

### Come to the office hours on Wednesday 10am EST to review Cohort Diagnostics Friday 9am EST

