

APAC 2023 Recap/Year Closing

December 14, 2023





- OHDSI APAC 2023 Recap
- Regional Chapter Year-End Updates



OHDSI APAC 2023 Recap

Mui Van Zandt



State of the Community





2023 OHDSI APAC Goals



collaboration amongst the different chapters through publication Create an APAC training program to expand reach to the general community Create collaboration activities that encourage collaborative generation and dissemination of the evidence that promotes better health decisions and better care



APAC Studies





APAC Scientific Forum

10

Monthly Meetings

To foster a collaborative environment for APAC researchers and host sessions on topics of community's high-interest:

- ✓ OMOP Standardized Vocabularies
- Community contribution guidelines to OMOP Standardized Vocabularies

8

Invited Speakers

To promote and provide updates on their studies, and gauge community's interest to participate

Training Sessions

Hosted by different regional chapters to share knowledge and engage newcomers to the community







Save Our Sisyphus (SOS) Challenge

35 Research Questions

Submitted by the OHDSI community

4 Studies

Selected to be designed, implemented, executed and disseminated by the community as a whole

1 Study Led by APAC

Is fluoroquinolone use really associated with the development of aortic aneurysms? led by Korea and Australia

9 Weekly Tutorials

Taught by global subject matter experts in two time zones to accommodate the entire global community

5 Months

From study conception to fruition, enabling presentation of preliminary study results at the APAC Symposium

OHDSI SOS Challenge 2023

Study overview: Is fluoroquinolone use associated with the development of aortic aneurysms and aortic dissections?

<u>Chief investigators:</u> Seng Chan You, Seonji Kim, Jung Ho Kim, Jung Ah Lee - Yonsei Universit Jack Janetzki. Nicole Pratt - University of South Australia

Important Lesson

Panel discussion with regulator, clinician, researcher, and consumer representatives triggered a critical debate on how we as a research community should best convey our findings to the general public





July

APAC Events

2023 APAC Symposium

- ✓ 2-day in-person event hosted in Sydney, Australia
- 110 attendees from around the world represented by all stakeholder groups including consumer!



2023 OHDSI CHINA 年会

2023 OHDSI China Annual Symposium



OHDSI (THE OBSERVATIONAL HEALTH DATA SCIENCES AND INFORMATICS) 是一 个世界性的公益型研究联盟,旨在推动全方位医学大数据分析的开源解决方案,通过大规 模数器分析和控握来提升幅体度学数据价值。实现跨学科,跨行业的多方合作、大会将查 "请国内沟流失多家学者,与同行人们用为学家国内公园局心的已经展示引得,建设方法。临床 信息、大数据 、人工智能、医学信息等前沿领域成果,促进多学科交交合作。OHDSI CHINA作为OHDSI中国分支,力图促进国内创建医疗发展谱规控和控展走的增进升,与国际 特别,推动我国建限医疗大数据的发展。OHDSI中国分部计划或各国上关学都能愿学研究

院举办一年一重的OHDSI CHINA年金。 OHDSI培训赋将于2023年12月16日举办,旨在培养关于OHDSI/OMOP的方法论,和工 具的展示和应用,培训内容包括,讲解OMOP通用数据度型COM和标准术语集,展示分析 工具ATLAS的应用,和OMOP研究发表的案例分享,凡注册本年会的人员即可免费参加 OHDSI培训班,由于培训地点空间受限,培训班名额有限,先注册先得/后续报名成功后会 收到短信或感样推动,各和具体地点及相关课程安排。

2023 OHDSI CHINA 年会将在复旦大学枫林校区明道楼一楼报告厅隆重举行,会议具体 议程如下:



2023 China Symposium

December

- 4-day in-person event hosted in Shanghai, China consisting of main conference and tutorials
- China regional experts from all disciplinary areas

2023



Community Communication







Community Recognition





Regional Chapter Year-End Updates



OHDSI China Chapter WG Leader: Lei Liu, Hui Lv, Yi Zhou, Hua Xu

• Objective 1: Promote OHDSI strategy and methodology in China

• Objective 2: Create collaboration activities that encourage collaborative research among healthcare institutions in China



Monthly Lectures

- 2/18 Mengling Feng, NUS, When Healthcare Meets AI and Data Standardization
- 3/11 Hua Xu, Yale, Representing and Utilizing Clinical Textual Data for RWS: An OHDSI Approach
- 4/15 Biyun Qian, Shanghai Hospital Development Center, Construction and Practice of Shanghai Digitalized Platform for Clinical Research
- 5/20 Shan Nan, University of Hunan, Rapid Construction of a Clinical Decision Support System based on OpenEHR
- 6/24 Yonghui Wu, University of Florida, Large GPT Models in Medicine
- 8/19 Yanshan Wang, University of Pittsburg, Generative AI Inspires Infrastructure Construction of Medical Big Data
- 10/28 Guangjun Yu, Hongkong Chinese University (Shenzhen), Construction of Rare Diseases Database

2023 OHDSI CHINA 年会

2023 OHDSI China Annual Symposium

→ 12月15日-12月18日 December 15-18 2023 **シ 复旦大学枫林校区** Fudan University, Fenglin Campus

OHDSI(THE OBSERVATIONAL HEALTH DATA SCIENCES AND INFORMATICS)是一 个世界性的公益型研究联盟,旨在推动全方位医学大数据分析的开源解决方案,通过大规 模数据分析和挖掘来提升临床医学数据价值,实现跨学科、跨行业的多方合作。大会将邀 请国内外顶尖专家学者,与同行们共同分享国内及国际OHDSI使用心得、建设方法、临床 信息 、大数据 、人工智能 、医学信息等前沿领域成果,促进多学科交叉合作。OHDSI CHINA作为OHDSI中国分支,力图促进国内健康医疗数据治理和挖掘能力的提升,与国际 接轨,推动我国健康医疗大数据的发展。OHDSI中国分部计划联合复旦大学智能医学研究 院举办一年一度的OHDSI CHINA年会。

OHDSI培训班将于2023年12月16日举办,旨在培养关于OHDSI/OMOP的方法论,和工 具的展示和应用。培训内容包括,讲解OMOP通用数据模型CDM和标准术语集,展示分析 工具ATLAS的应用,和OMOP研究发表的案例分享。凡注册本年会的人员即可免费参加 OHDSI培训班,由于培训地点空间受限,培训班名额有限,先注册先得!后续报名成功后会 收到短信或邮件推送,告知具体地点及相关课程安排。

2023 OHDSI CHINA 年会将在**复旦大学枫林校区明道楼一楼报告厅**隆重举行,会议具体 议程如下:

- 2023年12月15日 报到、注册及领取材料
- 2023年12月16日 OHDSI培训班
- 2023年12月17日 OHDSI CHINA年会论坛
- 2023年12月18日 离会

注册须知

1. 注册费标准

注册方式	类 别	收费标准
线上	普通	1000 元/人
线上	学生	500 元/人
现场	所有人	1800 元/人

注: 含培训费、资料费、午餐费。其他费用如交通、住宿费等自理。财务联系人: 王老师, QQ号: 305946104

报名注册方式(内含缴费渠道) 扫码进入



3.会务组联系方式 会务联系人:柳志 13052375379 张老师 021-54237296

大会部分阵容

大会邀请美国、新加坡、中国香港等国内外顶尖专家学者,设置多场主题报告及 专家教学研讨会,邀请各方专家分享该领域的前沿知识及经验。



OHDSI CHINA · 复旦大学智能医学研究院 · 上海市生物信息学会

协办单位

上海交大耶鲁大学生物统计联合中心・中山大学中山医学院



Fudan University Clinical Research Data Network Based on Private Computing and OHDSI Framework

- 1. Construct Private Computing Platform in Each Hospital
 - Data collection and cleaning of specific diseases
- 2. Form Data Network and Data Sharing
 - Policy for authorized data sharing
- 3. Form Clinical Research Network for Specific Diseases

後 5 大学 図 25 大学 5 年后 5 第 からかか (1995) 1010 1010 1010 1010 1010 1010 1010 10	品 平台概览 E 专	病概览 🗟 数据	探查 🗐 项目研 9	i S II	中心				• 🤷 🙎
全部专病库	过滤项: 人口学信息	[性别: 男× 女>	(][年齡: 16-70岁	×][身高: 1	110~170cm X][体重: 15~70k	g ×][血型(A	BO): A텦 ×	AB型 ×] 清除
Q Search	性别		诊图	Ť			年齡		
0 仅显示有值的目录索引		• # f	100						***** 25%
∨ 人口学信息 ⑤		• 女 4	0% 25		. 11) 🗄	***** 20% ***** 17% ***** 18%
Q. Search				诊断1 诊断2	诊断3 诊断4 诊断	15 诊断6		- *	20%
件別						血型(AE	30)		
☑ 男 1,200	3500 患者 分布者	E 3 家机构 2 家根	1构待授权 20个核	心变量		A型	B	핀	O型
🗹 女 1,000	医疗机构名称 🔶	- 专病库名称 ⇔	样本(病例)数量 〈	性别比例	○年龄○!	200	23	80	12
□ 未知 500	医院1	肝癌	2300	16:7	20~30岁 1	10~170cm	15-70kg	3	10条
年齡	00- 012-1	Rds R/v (RF-std)	2200	16.7	20-20 = 1	10-170om	1E 70kg	2	10.%
	25.0元1	周用X1贝 /描	2300	10:7	20~309 1	10~170cm	15-70kg	3	1098
0 10 20 40 60 80 100	医院1	****疾病	2300	16:7	20~30岁 1	10~170cm	15–70kg	3	10条
身高	医院2	肝癌	2300	16:7	20~30岁 1	10~170cm	15-70kg	3	10条
110 cm 170 cm	医院2	脑胶质瘤	2300	16:7	20~30岁 1	10~170cm	15–70kg	3	10条
0 100 120 140 160 180 200	医院2	****疾病	2300	16:7	20~30岁 1	10~170cm	15–70kg	3	10条
Image: height of the second									
		י ויין גיינאיז אינער וייז	1978, 20104-15115 - 5	0444 1473 141 141 141	NE-ADA THE TANK THE				





Regional Update



Jason C. Hsu Taipei Medical University, Taiwan December 14, 2023





Members in OHDSI Taiwan Society Office







Jason C. Hsu



Alex PA. Nguyen **Grace Huang**





Benson Cheng Phan Thanh Phuc



Yudha E. Saputra **Maz Solie**



Whitney Burton



Rachel Quynh Dian Tri Wiyanti Nguyen



Septi Melisa



Christianus Heru Set

A CONTRACTOR OF THE OWNER



Daniel Chris



Natalie



Carrie









Nina





Sunny





A CONTRACTOR OF THE OWNER OWNER OF THE OWNER OWNE

OHDSI Taiwan Society Activity Promotion of OHDSI network













OHDSI







June 18th 2023

OHDSI Taiwan Society Activity



Co-organize the conference with other organizations

Health big data seminar at Chiayi Christian Hospital





May 4th 2023

STRUCTURE STRUCTURES

OHDSI Taiwan Society Activity



Co-organize the conference with other organizations

Digital Health Cross-Domain Innovation Exchange Conference







OHDSI Taiwan Society Activity

June 18th 2023



OHDSI Educational Training in Taiwan



OHDSI Taiwan Society Activity

Sep 13th 2023



Implementing OHDSI OMOP CDM in Hsin Kuo Min Hospital



Nov 16th 2023



Host OHDSI Community Call



July 13-14 2023

THE OWNER AND THE OWNER OF THE OWNER OWNE



Join OHDSI APAC Symposium (Australia)







A CONTRACTOR OF A CONTRACTOR O



10

Join OHDSI Global Symposium (USA)













ĥ

OHDSI Study Publication

Participate in the international collaboration project on **Ranitidine**



Original Investigation | Pharmacy and Clinical Pharmacology Ranitidine Use and Incident Cancer in a Multinational Cohort

Seng Chan You, MD; Seung In Seo, MD; Thomas Falconer, MSc; Chen Yanover, PhD; Talita Duarte-Salles, PhD; Sarah Seager, BA; Jose D. Posada, PhD; Nigam H. Shah, PhD; Phung-Anh Nguyen, PhD; Yeesuk Kim, MD; Jason C. Hsu, PhD; Mui Van Zandt, BS; Min-Huei Hsu, MD; Hang Lak Lee, MD; Heejoo Ko, MD; Woon Geon Shin, MD; Nicole Pratt, PhD; Rae Woong Park, MD; Christin G. Reich, MD; Marc A. Suchard, MD; George Hripcsak, MD; Chan Hyuk Park, MD; Daniel Prieto-Alhambra, MD

Abstract

IMPORTANCE Ranitidine, the most widely used histamine-2 receptor antagonist (H₂RA), was withdrawn because of N-nitrosodimethylamine impurity in 2020. Given the worldwide exposure to this drug, the potential risk of cancer development associated with the intake of known carcinogens is an important epidemiological concern.

OBJECTIVE To examine the comparative risk of cancer associated with the use of ranitidine vs other H₂RAs.

DESIGN, SETTING, AND PARTICIPANTS This new-user active comparator international network

Key Points

Question Is use of ranitidine associated with higher risk for incident cancer compared with other histamine-2 (H₂) receptor antagonists (H₂RAs)?

Findings In this cohort study including 1183 999 individuals from 11 large databases across Europe, North America, and Asia, risk of cancer among ranitidine users did not differ from users



June 18th 2023

ATTENNED.



Support OHDSI Vietnam Chapter





Welcome to visit our OHDSI Taiwan Website

www.OHDSI-Taiwan.com



OHDSI TAIWAN

News

Review

Links



13



Thanks for your listening!



ALL DESCRIPTION OF THE OWNER OF T



OHDSI-Korea 2023

Seng Chan You

CDM Data Network in Korea

Data Network of 63 Hospitals (79M patients), 3 National Claims

> 80% of Tertiary Teaching Hospitals



CDM Data Network in Korea

Data Network of 63 Hospitals (79M patients), 3 National Claims

No.	Name of Data Partner (Eng)	Type of Data	# Unique Patients
1	Gachon University Gil Medical Center	EHR	1,709,983
2	The Catholic University of Korea, Seoul ST. Mary's Hospital	EHR	3,212,915
3	The Catholic University of Korea, Yeouido ST. Mary's Hospital	EHR	2,279,292
4	The Catholic University of Korea, Uijeongbu ST. Mary's Hospital	EHR	961,049
5	The Catholic University of Korea, ST. Vincent's Hospital	EHR	1,102,630
6	Gangnam Severance Hospital	EHR	1,661,794
7	Kyung Hee University Hospital At Gangdong	EHR	810,031
8	Kangdong Sacred Heart Hospital	EHR	1,194,685
9	Kangbuk Samsung Hospital	EHR	1,472,253
10	Gangneung Asan Hospital	EHR	915,643
11	Kangwon National University Hospital	EHR	553,708
12	Konkuk University Medical Center	EHR	1,063,104
13	Konyang University Hospital	EHR	555,005
14	Kyungpook national university hospital	EHR	1,324,716
15	Gyeongsang National University Hospital	EHR	626,663
16	Kyung Hee University Medical Center	EHR	1,168,640
17	Korea University Guro Hospital	EHR	2,106,320
18	Korea University Ansan Hospital	EHR	1,537,665
19	Korea University Anam Hospital	EHR	1,891,753
20	National Cancer Center	EHR	103,573
21	National Health Insurance Service Ilsan Hospital	EHR	1,427,424
22	Catholic Kwandong University International ST. Mary's Hospital	EHR	403,989
23	Dankook University Hospital	EHR	1,153,345
24	Daegu Catholic University Medical Center	EHR	906,587
25	Dongguk University Medical Center	EHR	695,280
26	Myongji Hospital	EHR	882,646
27	Myongji Hospital (Jecheon)	EHR	219,574
28	Pusan National University Hospital	EHR	791,935
29	Bucheon Sejong Hospital	EHR	416,686
30	Seoul National University Bundang Hospital	EHR	2,006,000
31	Cha University Bundang Medical Center	EHR	2,363,386
32	samsungmedical Center	EHR	3,575,923
33	Seoul National University Hospital	EHR	3,240,850

No.	Name of Data Partner (Eng)	Type of Data	# Unique Patients
34	Asan Medical Center	EHR	4,896,016
35	Chungnam National University Sejong Hospital	EHR	94,562
36	Soonchunghyang University Hospital (Gumi)	EHR	632,252
37	Soonchunghyang University Hospital (Bucheon)	EHR	1,301,117
38	Soonchunghyang University Hospital(Seoul)	EHR	1,098,041
39	Soonchunghyang University Hospital (Chonan)	EHR	987,701
40	Ajou University Hospital	EHR	2,873,443
41	Severance Hospital	EHR	3,605,088
42	Wonju Severance Christian Hospital	EHR	1,050,538
43	Yongin Severance Hospital	EHR	291,349
44	Ulsan University Hospital	EHR	400,609
45	Wonkwng University Hospital	EHR	837,461
46	Ewha Womans University Medical Center (Mokdong)	EHR	1 667 671
47	Ewha Womans University Medical Center (Seoul)	EHR	1,007,071
48	Incheon Sejong Hospital	EHR	219,834
49	Inha University Hospital	EHR	1,978,186
50	Chonnan National University Hospital	EHR	1,802,241
51	Jeonbuk National University Hospital	EHR	1,466,713
52	Gyeongsang National University Changwon Hospital	EHR	286,642
53	Chungnam National University Hospital	EHR	645,922
54	Kyungpook National University Chilgok Hospital	EHR	642,572
55	Korea Institute of Radiological & Medical Sciences	EHR	487,965
56	Hanyang University Seoul Hospital	EHR	1,783,111
57	Chonnam National University Hwasun Hospital	EHR	504,073
58	The Catholic Univ. of Korea, Eunpyeong ST. Mary's Hospital	EHR	436,645
59	Keimyung University Daegu Dongsan Hospital	EHR	122,526
60	Keimyung University Dongsan Medical Center	EHR	491,805
61	SMG-SNU Boramae Medical Center	EHR	1,849,638
62	Presbyterian Medical Center	EHR	1,412,042
63	Chung-Ang University Hospital	EHR	1,139,539
64	Health Insurance Review & Assessment Service	Claim	56,579,726
65	Health Insurance Review & Assessment Service	Claim	9,822,577
66	National Health Insurance Service	Claim	55,651,898

CDM Data Network in Korea



OPEN Scalable Infrastructure Supporting ARTICLE Reproducible Nationwide Healthcare Data Analysis toward FAIR Stewardship

() Check for update

Ji-Woo Kim^{1,7}, Chungsoo Kim^{0,7}, Kyoung-Hoon Kim³, Yujin Lee³, Dong Han Yu¹, Jeongwon Yun¹, Hyeran Baek¹, Rae Woong Park^{0,2,4,8}⊠ & Seng Chan You^{0,5,6,8}⊠

Transparent and FAIR disclosure of meta-information about healthcare data and infrastructure is essential but has not been well publicized. In this paper, we provide a transparent disclosure of the process of standardizing a common data model and developing a national data infrastructure using national claims data. We established an Observational Medical Outcome Partnership (OMOP) common data model database for national claims data of the Health Insurance Review and Assessment Service of South Korea. To introduce a data openness policy, we built a distributed data analysis environment and released metadata based on the FAIR principle. A total of 10,098,730,241 claims and 56,579,726 patients' data were converted as OMOP common data model. We also built an analytics environment for distributed research and made the metadata publicly available. Disclosure of this infrastructure to researchers will help to eliminate information inequality and contribute to the generation of high-ouality medical evidence.



We aimed to standardize HIRA data into OMOP-CDM, build infrastructure **providing scalable accessibility and a flexible data analysis environment with privacy-by-design protection**, and verify whether the infrastructure guarantees the **reproducibility** of research.

The aim of this study was **to enhance the FAIRness of the national healthcare database**, which refers to its ability to be easily Findable, Accessible, Interoperable, and Reusable (FAIR).

RFZ in Korea

Research boarder-Free Zone (RFZ)

Purpose

Mutual Cooperation Agreement for Multi-center Collaborative Research using OMOP-CDM

Contents of Agreement

- 1. Reciprocal unlimited access to CDM of RFZ hospitals
- 2. Single IRB





32 Hospitals (22M patients)

No.	Name of Data Partner (Eng)	Type of Data
1	Kyung Hee University Hospital At Gangdong	EHR
2	Kangdong Sacred Heart Hospital	EHR
3	Kangwon National University Hospital	EHR
4	Konyang University Hospital	EHR
5	Gyeongsang National University Hospital	EHR
6	Kyung Hee University Medical Center	EHR
7	Catholic Kwandong University International ST. Mary's Hospital	EHR
8	Daegu Catholic University Medical Center	EHR
9	Myongji Hospital	EHR
10	Myongji Hospital (Jecheon)	EHR
11	Pusan National University Hospital	EHR
12	Bucheon Sejong Hospital	EHR
13	Chungnam National University Sejong Hospital	EHR
14	Soonchunghyang University Hospital (Gumi)	EHR
15	Soonchunghyang University Hospital (Bucheon)	EHR
16	Soonchunghyang University Hospital(Seoul)	EHR
17	Soonchunghyang University Hospital (Chonan)	EHR
18	Ajou University Hospital	EHR
19	Ulsan University Hospital	EHR
20	Wonkwng University Hospital	EHR
21	Ewha Womans University Medical Center (Mokdong)	EHR
22	Ewha Womans University Medical Center (Seoul)	EHR
23	Incheon Sejong Hospital	EHR
24	Jeonbuk National University Hospital	EHR
25	Gyeongsang National University Changwon Hospital	EHR
26	Chungnam National University Hospital	EHR
27	Korea Institute of Radiological & Medical Sciences	EHR
28	Keimyung University Daegu Dongsan Hospital	EHR
29	Keimyung University Dongsan Medical Center	EHR
30	Keimyung University Kyungju Dongsan Hospital	EHR
31	Hallym University Dongtan Sacred Heart Hospital	EHR
32	Inje University Busan Paik Hospital	EHR

Events in Korea

Seminar

2017년 CDM tutorial

OHDSI : Design and implementation of a comparative cohort study in

vational health care data

아주대학교 외로정보학과 유승찬

 \times

데이터 소스

CDM 데이터 종류

국외데이터

- Seminar: Writing papers using CDM
- Date: 21 March 2023
- Participants: 15

Tutorial

- Tutorial: 2023 OHDSI Korea Tutorial
- Date: 28 June 2023
- Participants: 35



2023년 한국원자력의학원 세미나 CDM을 이용해서 논문쓰기


Mapping Updates in Korea

- In Korea, we have a code for the reimbursement or claim data called EDI.
- Athena has incorporated 313,431 EDI codes of Korean medical information.
- We aim to update 457,740 EDI codes into the OMOP Standardized Vocabularies by incorporation the data provided by HIRA up to October 1, 2023.
- This year, our goal is to load EDI codes into Athena by next February.



- **Unique Device Identifier(UDI)** is a system of labeling and identifying medical devices within the supply chain from manufacturing.
- UDI system is more granular than SNOMED-CT or EDI vocabulary.
 - Granularity of vocabulary : SNOMED-CT < Korean EDI < UDI



- Example of EDI based medical device CDM Entry
 - Pacemaker VISIONIST X4 CRT-P (EDI: G8103225)

CDM Field	User Guide	Example
device_exposure_id	Unique ID (PK)	1
device_concept_id	OMOP Standard Vocabulary Concept ID	45767329
unique_device_id	Device identifier of UDI (UDI-DI)	(01)08801234512343
production_id	Production Identifier of UDI (UDI-PI)	(10)110500(17)120501 (21)9G837GH234J
device_source_value	EDI code	G8103225
device_source_concept_id	EDI OMOP concept ID	42103125

Standard Vocabulary in CDM

	Concept ID	Vocabulary ID	Description
~	45767329	SNOMED	CRT implantable pacemaker

Vocabulary mapping

EDI Code (Source code: G8103225)

Concept ID	Source_value	Description
42103125	G8103225	VISIONIST X4 CRT-P

• Mapping EDI to **UDI-DI**

	Medical Devices		Mapping rates of DI	
Group of EDI	Group Name	Model name	Model name + EDI	Manual mapping
G0	Artificial blood vessels	13.33%	13.33%	→ 95.56%
G8	Pacemaker, CRT, ICD & Lead	30.08%	69.92%	75.61%
J8	Balloon catheter & Coronary stent	63.16%	→ 88.10% -	→ 93.14%

• Capturing **UDI-PI** information

- Combine information with the AI identifier to generate a temporary UDI-PI.
- There is no specific rule when creating UDI-PI.
- UDI-PI may have a different sequence or structure by the company, but necessary information can be extracted using the AI identifier.

	1	출품미고드지경 네	이글				I
순번	컬럼명	컬럼 한글명칭	타입	null여부 PK		CDM Field	
1	OrdReqYmd	OCS청구일자	char(8)	not null O			
2	OrdSeq	처방일련번호	bigint	not null O		person_id	
3	MtICd	자재코드	varchar(18)	eat null O	EDI → OMOP	device concept id	
4	MtlSeqNo	자재코드일련번호	int	not null 0		annee Courter Cou	
5	UseQty	바코드사용량	int	null	→ 모델명 → UDI-DI	unique_device_id	(01)08801234512343
6	RetYn	반환처방여부	char(1)	not null	유효기간+제조번호 +일련번호	production id	(10)110500(17)120501(21)008270422
7	ValidYmd	유효기간	varchar(10)	null		production_id	(10)110500(17)120501(21)908570H25
В	LotNo	제조번호	varchar(20)	null		device_source_value	
9	SerialNo	제품시리얼번호	varchar(50)	null		device evenesure start data	
10	BcdNo	바코드번호	varchar(100)	null		device_exposure_start_date	
11	UseYmd	사용일자	char(8)	null	,	device_exposure_end_date	
12	UseHms	사용시간	char(6)	null			

- Currently, there is no functionality for entering UDI lists in ATLAS.
- Therefore, Cohort generation and Incidence Rates analysis are impossible within the ATLAS platform.
 - \rightarrow Directly create cohorts and conduct IR analysis in the DBMS.
 - \rightarrow Generate SQL queries to enable the use of any device with UDI containing the (blank) format.



Pacemaker and Infection

Concept_id	45767340 (Dual chamber rate responsive implantable cardiac pacemaker)		1 11
EDI	G8205625 (INGENIO MRI & ACCOLADE MRI DR PACEMAKER)	8-1 8-1	
UDI	Comparing inflammation occurrences, into Standard / Extended groups based on the lifespan of device	ACCO	100





Projected Longevity (Years)

Pacing	VR	DR	DR-EL
50% RA/RV 2.5V	10.0	8.8	14.0
100% RA/RV 2.5V	9.2	7.6	12.1

Additional Longevity Information

- Settings: pacing pulse width 0.4ms, Impedance 500Ω, LRL 60bpm, Sensor On, EGM Onset On. These calculations also assume that the pulse generator spends 6 months in Storage mode during shipping and storage, the Zip[™] telemetry use for 1 hour at implant time and for 40 minutes annually for in-clinic follow-up checks. For longevity calculations based on different settings please contact Boston Scientific technical services or your local representative.
- Power Supply VR and DR models: lithium-carbon monofluoride cell; Boston Scientific; 402290.
- Power Supply DR-EL: lithium-carbon monoflouride cell; Boston Scientific; 402294.



Synthetic vascular graft and Infection

Concept_id	3661570 (Synthetic vascular graft)	
EDI	G0003012 (Vascular Hemashield Woven Double Velour Straight Tubes)	-
UDI	Comparing inflammation occurrences, into Small / Large groups based on the diameter(mm) of device	in

UDI	Diameter (mm)	Record Count
00384401018124	6	37
00384401018148	8	106
00384401018155	10	235
00384401018162	12	129
00384401018179	14	49
00384401018186	16	39
00384401018193	18	24
00384401018209	20	67
00384401018216	22	72
00384401018223	24	89
00384401018230	26	65
00384401018247	28	60
00384401018254	30	121
00384401018261	32	31
00384401018278	34	21









OHDSI Australia 2023



www.ohdsi-australia.org



Activities

2023 OHDSI APAC Symposium





Australian Research Data Commons

Training Resource



https://ohdsi-australia.org/Full_Tutorial.pdf



GOAL!



Symposium

.8 & Thursday 19 October 2023

GOAL for 2024: To expand community of practice in translation of EMR data to OMOP

Activities



9:00 am - 9:05 am Welcome - Day One

9:05 am - 9:20 am Introduction to OHDSI - Why are we here?

9:20 am - 9:50 am An open science system that builds trust, confidence and address the needs

9:50 am - 10:20 am An Overview of ODHSI International Collaboration

10:20 am - 11:00 am Overview of Australian OHDSI OMOP Sites

11:00 am - 11:30 am Morning Tea

11:30 am - 11:45 am How does OMOP work?

1:30 pm

arks

11:45 am - 12:00 pm Limitations of OHDSI Data - Quality considerations and responses

12:00 pm - 12:30 pm What does EMR data mean for existing public health data respositories?

12:30 pm - 1:00 pm What does EMR/OMOP data mean for Clinical Quality Registries?

EMR/OMOP data mean for drug and device surveillance & pharma

change the risk profile?



Agenda (day one) Agenda (day two)

Welcome - Day Two

9:10 am - 11:00 am Break out activity

11:00 am - 11:30 am Morning tea

11:30 am - 12:00 pm Simplification and standardisation of clinician access via ATLAS/ R Studio

12:00 pm - 1:00 pm Establishing a Victorian Community of practice for EMR Data driven research

1:00 pm - 2:00 pm Lunch

2:00 pm - 4:00 pm A pilot multicentre study using local OMOP data

4:00 pm - 4:15 pm

Closing Remarks



EMR to OMOP Project



Transforming health data for greater accessibility, rapid interrogation, and evidence generation.

EMR to OMOP Project: Advancing Healthcare Data Standards

Welcome to the EMR to OMOP Project, a transformative initiative led by the Australian Health Research Alliance's (AHRA) Transformational Data Collaboration, directed by Professor Dougie Boyle and Roger Ward.

Project Funding: This project has been made possible through funding from the Australian Research Data Commons. For detailed information on the project and its funding, please visit <u>ARDC's project page</u>

Current Developments:

At present, three OMOP datasets are under development, all based on the Cerner platform. These datasets originate from leading healthcare providers:

- 1. Austin Health in Melbourne (https://doi.org/10.26188/24562789.v2)
- 2. Western Health in Melbourne (https://doi.org/10.26188/24597273.v2)
- 3. Sydney Local Health District
- 4. The University of Queensland and Queensland Health

While the data is not open access, researchers can enquire about access subject to ethics and governance approvals.

Future Expansion: As part of our strategic vision, we plan to expand our efforts to include EPIC EMRs in the future. This expansion aligns with our commitment to broadening the reach of standardized health data and fostering innovation in healthcare research and delivery. Stay tuned for updates on our progress, milestones, and the growing impact of the EMR to OMOP Project.

_	-	Research	
		Square	

Search preprints

Q

Research Article

Integrated Data Governance, Digital Health, and the Common Data Model (OMOP-CDM)

Christine M	ary Hallinan	ORC	ID
Roger Ward	ORCID		
Graeme K H	lart ² ORCI	D	
Clair Sulliva	n ³ ORCID		
Nicole Pratt	4 ORCID		
Ashley P No	⁵ ORCID		
Daniel Capu	urro ² ORCI	D	
Anton Van [Der Vegt ³	ORCID	
Teng Liaw ⁶	ORCID		
Oliver Daly ²	ORCID		
Blanca Galle	ego Luxan ⁷	ORCID	
David Bunk	er ³		
Douglas Bo	vle ⁸ ORCI	D Email	

¹ HaBIC Research Information Technology Unit (HaBIC R2), Department of General Practice and Primary Care, Faculty of Medicine, Dentistry & Health Sciences, The University of Melbourne,

² School of Computing and Information Systems, Faculty of Engineering and Information Technology, Centre for the Digital Transformation of Health, Faculty of Medicine, Dentistry, and Health Sciences, The University of Melbourne,

³ Queensland Digital Health Centre (QDHeC), Centre for Health Services Research, Faculty of Medicine, The University of Queensland,

^a Quality Use of Medicines and Pharmacy Research Centre, Clinical and Health Sciences, University of South Australia,

⁵ Clinical Haematology Department, The Royal Melbourne Hospital and Peter MacCallum Cancer Centre,

⁶ Clinical Informatics & Digital Health, School of Population Health, UNSW, Sydney,

⁷ Centre for Big Data Research in Health (CBDRH), UNSW, Sydney,

⁸ HaBIC Research Information Technology Unit (HaBIC R2), Department of General Practice and Primary Care, Faculty of Medicine, Dentistry & Health Sciences, The University of Melbourne

This is a preprint; it has not been peer reviewed by a journal.

https://doi.org/10.21203/rs.3.rs-3479039/v1 This work is licensed under a CC BY 4.0 License

Abstract

Adoption of the Observational Medical Outcomes Partnership Common Data Model (OMOP-CDM) internationally and in Australia has enabled the conversion of vast amounts of complex, and heterogeneous electronic medical record (EMR) data into a standardised structured data model. This helps simplify governance processes and facilitates rapid, repeatable cross-institution analysis through shared end-to-end analysis packages without the sharing of raw data.



Generating the evidence!

• SOS Challenge

- Floroquinolones and Aortic Dissection Aneurysm

- Multiple Sclerosis treatment utilization and safety (PML)
- Methods Research
 - Prevalent New User studies
 - Heterogeneity





New Evidence Translation Work Group

How can OHDSI *improve understanding* about real world evidence we produce so that it can be used in decision making?





www.ohdsi-australia.org



Cheers!

OHDSI Japan Chapter Preview

14-Dec-2023

Nationan Cancer Center Hospital East

Yoshihiro Aoyagi

OHDSI Japan chapter meetings



概要

オデッセイ ジャパン

お問い



OHDSI (オデッセイ) は、共通データ形式を使った医療ビッグデータ分析を推進するオープンサイエ ニティ (研究会) です。国際的・ボランタリーベース・産学官病所属を問わないという特徴をもち、 療を促進するエビデンスを共同して生みだすことを推進し、健康と病気の包括的な理解を観察研究か 世界を目指しています。OHDSIは米国で2014年にスタートし今では世界中に参加者がいます。オープ ても、医療データは各参加組織のところで守られ、個人情報が各参加組織の外にでることはありませ 法により開始わずか5年で、OHDSIの国際連携ネットワークには重複を除外して推定6億人以上のデ れるまで成長しました。欧州、中国、韓国に引き続き、2019年秋に日本にも地域コミュニティができ ます。

OHDSI Japan資料

※OHDSIは古代ギリシャ叙事詩Odysseyにちなんでおり同じ発音をします。Odysseyの日本語読みは慣用的に「オ 英語発音は人/場面により異なりますが、オデシーからオゥデシー、オゥデッシーといったところです。

■臨中ネット(国がん東病院)「OHDSI Tool Documents」 OHDSI の各種Toolの日本語資料が、国立がん研究センター東病

OHDSI Tool D	ocume
--------------	-------

Usagi

中間形式からOMOP CDMへ#3

さほひめボキャブラリ(医薬品編)

背景·目的

- さほひめの医薬品コードは、レセ電コードで付いている。
- OMOP標準Concept IDへ変換(マッピング)したい。
- OMOP医薬品リストはRxNormとRxNorm Extensionで構成されている。今や多くがRxNorm Extension。
- Standrad印の医薬品にマッピングさせる必要がある。
- 基本的に名称でマッチングさせるしかない。

		2	3	4	5	6
1	患者ID	日本語名称	レセ電コード	日付	種類	日数↓
2	1	アセトアミノフェン200mg錠	621520803	1958-03-11	処方箋	904
3	1	アスビリン腸溶錠100mg	620009301	1970-12-03	処方箋	28↓
4	1	サワシリンカプセル125 125mg	622054901	1953-02-06	処方箋	104
5	1	オーグメンチン配合錠250RS 375mg	621116301	1967-05-30	処方箋	214
6	1	オーグメンチン配合錠250RS 375mg	621116301	2012-02-14	処方箋	144
7	1	ブレベナー13水性懸濁注	-	2014-04-24	院内実施	4
8	1	セレコキシブ錠100mg	622704201	1982-08-12	処方箋	04
9	1	アセトアミノフェン錠300mg	621677503	1971-01-04	処方箋	144
0	1	アセトアミノフェン錠300mg	621677503	1982-09-11	処方箋	21
1	1	沈降ジフテリア破傷風混合トキソイド	-	2010-04-01	院内実施	4
0	1		000050001	1070 00 00	5n	05.

https://www.ohdsi-japan.org/

https://www.ohdsi-japan.org/_files/ugd/a49dac_348dae969c934cc4a257d7d6fb84baf8.pdf

ホーム

Japan Projects hilights

お問い合わせ

医療データの安心な連携分析で 健康な社会を創る



https://fedana.jp/

Japan Projects hilights



<u>2023APACSymposium – OHDSI</u> OHDSI Tool Documents (rwd-data-environment-in-hospital.github.io)

looking to next year...

OHDSI Japan chapter Yoshihiro Aoyagi

1.Collaboration! 2.Collaboration! 3.Collaboration!

OHDSI Japan chapter Yoshihiro Aoyagi



Thank you!





OHDSI Singapore Update 2023

Singapore Chapter Co-Chairs: Dr. Mengling 'Mornin' Feng Senior Assistant Director, National University Health System Assistant Professor, National University of Singapore <u>ephfm@nus.edu.sg</u>

Dr Ngiam Kee Yuan

Group Chief Technology Officer, National University Health System kee_yuan_ngiam@nuhs.edu.sg





- All-of-Singapore mapping efforts underway since 2021
- Deep mapping of demographics, diagnosis, medications and lab tests completed
- Harmonization across all research sites underway
- Mapping script is centrally available as a service on the TRUST platform to enable whole of country data synchronization







- Multiple large research groups undertaking mapping efforts of their research datasets
 - Precise SG100K
 - ATTracT
 - Singcloud
 - GUSTO
- OMOP Genomics workgroup
 - Genomics definitions to be aligned to GA4GH
 - All genomics concepts to have a canonical ID (CID)
 - Definitions to be finalized this 2024



Singapore launches next phase of National **Precision Medicine Programme**

07 APR 2021





0

f

in









Building a Longitudinal National Integrated Cardiovascular Database - Lessons Learnt From SingCLOUD



Khung Keong Yeo ^{1 2}, Hean-Yee Ong ³, Terrance Chua ^{1 2}, Zheng Jie Lim ⁴, Jonathan Yap ¹, Hee Hwa Ho ⁵, Fazlur Jaufeerally ^{2 6}, Khim-Leng Tong ⁷, Pipin Kojodjojo ⁸, Hwee-Bee Wong ⁹, Derrick Heng ¹⁰, Kelvin Bryan Tan ¹¹, Arthur Mark Richards ¹², Kristine Leok-Kheng Teoh ¹³, Kenny Sin ¹⁴, Ngiap Chuan Tan ¹⁵, Simon Biing Ming Lee ¹⁶, Terence Lim ¹⁷, Andy Ta ¹⁷, Edwin Liok ¹⁸, Yee How Lau ¹⁹, Fei Gao ²⁰, Christian Liman ²¹, Joydeep Sarkar ²¹, Anders Sahlén ^{1 22}, Tian Hai Koh ¹, Mark Y Chan ²³

Affiliations + expand PMID: 33693172 PMCID: PMC7929705 DOI: 10.1253/circrep.CR-19-0106 Free PMC article

Abstract

Background: Real world data on clinical outcomes and quality of care for patients with coronary artery disease (CAD) are fragmented. We describe the rationale and design of the Singapore Cardiovascular Longitudinal Outcomes Database (SingCLOUD). **Methods and Results:** We designed a health data grid to integrate clinical, administrative, laboratory, procedural, prescription and financial data from all public-funded hospitals and primary care clinics, which provide 80% of health care in Singapore. Here, we explain our approach to harmonize real-world data from diverse electronic medical and non-medical platforms to develop a robust and longitudinal dataset. We present pilot data on patients with myocardial infarction (MI) treated with percutaneous coronary intervention (PCI) between 2012 and 2014. The initial data set had 53,395 patients. Of these, 35,203 had CAD confirmed on coronary angiography, of whom 21,521 had PCI. Eventually, limiting to 2012-2014, 3,819 patients had MI with PCI, while 5,989 had MI. Compared with the quality improvement registry, Singapore







GUSTO and S-PRESTO are Singapore's largest and most comprehensive birth cohort studies. Collectively, these studies will give us more insight and understanding into the prevention and management of important diseases in Singapore and improve the nation's health.

Read more >



■ 366

Number of publications



*

Number of media coverage

Number of active GUSTO participants ¥ 327 Number of active S-PRESTO participants





GUSTO Data Vault: Laving the foundations for an open science system with **OMOP** Data Catalogue PRESENTERS: Cindy Ho,

Mukkesh Kumar

INTRO:

- Growing Up in Singapore Towards healthy Outcomes (GUSTO) aims to understand how conditions in pregnancy and early childhood influence the subsequent health and development of women and children.
- The A*STAR/GUSTO Data Vault platform have advanced data exploration capabilities for research data, biospecimens and publications asset management.
- The OMOP Data Catalogue was created in GUSTO Data Vault to showcase the GUSTO data which have been converted into OMOP CDM format.

METHODS

- Data Vault (containerized web) application with Docker) was built using PostgreSQL database and Django.
- Tools used: HTML, CSS, jQuery, Ajax, Python, Plotly Dash, Dashboard engine in Dash Enterprise
- · OMOP fields were mapped using Athena and customized R programming scripts.

RESULTS

- OMOP Data Catalogue makes GUSTO cohort-specific CDM fields to be discovered across the Person, Condition, Observation and Measurement tables by the global research community.
- Metadata is described with relevant attributes such as CDM Field, Concept ID, Name, Subject Type, Visit Timepoint, Description and Domain.
- Data profiling of the OMOP Concept IDs enables GUSTO data to be reused, described, discovered, and identified by researchers (FAIR data principles).
- OMOPed data from incremental OMOP conversions can be seamlessly integrated in OMOP Data Catalogue by GUSTO data curators.
- · This enables database level characterizations for GUSTO study.

GUSTO OMOP Data Catalogue

lays the foundations for

developing cross-study OMOP

Data Catalogues expanded

across APAC and global OHDSI

data partners, enabling database

level characterizations.







at Year 18 of the stud ants who are still activ

Our future work includes the optimization of GUSTO OMOP data conversion journey using advanced OMOP conversion tools such as the IQVIA OMOP Converter. Snippets of OMOP Data Catalogue

Landing Page



Dr Mukkesh Kumar A*STAR



Cinday Ho A*STAR





Cindy Ho, Li Ting Ang, Maisie Ng,

Hang Png, Shuen Lin Tan, Estella

Ye, Sunil Kumar Raja, Mengling

School of Public Hea

OHDS

Kumar

NUS Saw Swee Hock

...

Feng, Johan G Eriksson, Mukkesh



OMOP-CDM in Asia-Pacific regions and Lessons for Data Quality Assessment

Sujin Gan, RN¹, Chungsoo Kim, PharmD¹, Seongwon Lee, PhD², Jing Li³, Jiawei Qian³, Gyeol Song³, Clair Blacketer⁴, Anthony Molinaro⁴, Dinuja Willigoda Liyanage⁵, Zhang jingyi ⁶, Li Chao⁶, Roger Ward⁷, Mengling Feng⁸, PhD, Mui Van Zandt³, Rae Woong Park, MD, PhD^{1,2}

¹Department of Biomedical Sciences, Ajou University Graduate School of Medicine, Suwon, Korea; ²Department of Biomedical Informatics, Ajou University School of Medicine, Suwon, Korea; ³IQVIA, NC, United States; ⁴Janssen Research and Development, NJ, United States; ⁵University of South Australia, Australia; ⁶Wonders Information Co.Ltd, Shanghai, China; ⁷The University of Melbourne, Australia; ⁸Saw Swee Hock School of Public Health, National University of Singapore, Singapore

Introduction

The Observational Medical Outcome Partnership-Common Data Model (OMOP–CDM), an open community data standard, is being implemented globally, but data quality control for CDM adoption is challenging. The data quality assessment tools including the Achilles Heel¹ and Data Quality Dashboard² have been performed only individually at each institution. Therefore, European Health Data and Evidence Network (EHDEN) has developed the CDM Inspection report, which writes a report on data statistics, mapping, and quality checks, to provide insight into the completeness, transparency, and quality of the data.

Methods

The CDM Inspection report was collected on the OHDSI Asian Pacific (APAC) community, using the R package (<u>https://github.com/ABMI/CdmInspection</u>). A total of 22 databases from Korea, 2 from Japan, and 1 each from Australia, China, and Singapore were included, and they consisted of 25 EMRs and 2 claims. The report describes an analysis result of the number of records or patients, the ratio of records per person (RPP), the ratio of records per observation period, the mapping ratio between source and transformed data, the mapping level of drug vocabulary, and list of frequent concepts for each domain table of the OMOP–CDM.







Characterization of Health by OHDSI Asia-Pacific chapter to identify Temporal Effect of the Pandemic for Diabetes Mellitus (CHAPTER-DM)

Yizhi Dong¹, Seng Chan You^{2,3}, Su Bin Kim^{2,3}, Jing Li⁴, Can Yin⁴, Mornin Feng Mengling¹ ¹Affilication A ²Department of Biomedical Systems Informatics, Yonsei University College of Medicine, Seoul, South Korea ³Institute for Innovation in Digital Healthcare, Yonsei University, Seoul, South Korea ⁴IQVIA

Background

P

Since 2019, the SARS-CoV-2 coronavirus disease pandemic (COVID-19) had spread all over the world and proposed challenges to healthcare systems. The OHDSI Asian Pacific regional chapter has launched the Characterization of Health by OHDSI Asia-Pacific chapter to identify Temporal Effect of the Pandemic (CHARTER) study to describe the temporal change in incidence of diseases and healthcare pattern before and after the emergence of COVID-19.

Diabetes is an important comorbidity among patients diagnosed with COVID-19 with high prevalence (1). Evidence was shown that the presence of diabetes doubles the COVID-19 mortality risk and leads to worse severity (2). The identification and proper treatment that is given to patients with diabetes had thus become crucial during the pandemic. However, patients with diabetes may have limited access to healthcare resources due to the pressure on healthcare system because of COVID-19. In addition, the treatment pattern may vary during the pandemic since priority may be given to infectious diseases instead of diabetes treatment.



Updates for 2023 Master of Biomedical Informatics









Plans for 2024



APAC Symposium 2024

6-9 Dec 2024







APAC Symposium 2024 Day 0: Ohdsi Tutorial/Hands-on Workshop







APAC Symposium 2024 Day 1: Official Symposium

(*** * *




APAC Symposium 2024 Day 2-3: Data-thon







Co-Host with SG Healthcare AI Datathon and EXPO (SHADE 2024)



About **v** Expo Workshops Datathon **v** HALE Contact **Registration**



On the latest predictive technologies and devices



EXPO

Lectures and seminars by speakers from Microsoft, Huawei, Harvard, and MIT



DATATHON

Solve real world healthcare problems and train your Al with our datasets.



HALE

Healthcare AI Leadership Executive Education Programme



APAC Symposium 2024 **Preparing for Singapore**







APAC Symposium 2024

6-9 Dec 2024







Thank you!