



Workgroup OKRs + Mini-Journal Club

OHDSI Community Call
Feb. 17, 2026 • 11 am ET



Upcoming Community Calls

Date	Topic
Feb. 24	Workgroup OKRs
Mar. 3	New Vocabulary Release
Mar. 10	TBA
Mar. 17	TBA
Mar. 24	OHDSI/OMOP Research Spotlight
Mar. 31	Kickoff to Phenotype April



Three Stages of The Journey

Where Have We Been?

Where Are We Now?

Where Are We Going?



OHDSI Shoutouts!



Congratulations to the team of **Ryuji Hamamoto, Takafumi Koyama, Satoshi Takahashi, Tomohiro Yasuda, Kazuma Kobayashi, Yu Akagi, Nobuji Kouno, Kazuki Sudo, Makoto Hirata, Kuniko Sunami, Takashi Kubo, Hiroshi Katayama, Atsuo Takashima, Tomonori Taniguchi, Hiromi Matsumoto, Ryota Shibaki, Ken Asada, Masaaki Komatsu, Syuzo Kaneko, Masayoshi Yamada, Hidehito Horinouchi, Katsuya Tanaka, Yasushi Goto, Ken Kato, Yutaka Saito, Kenichi Nakamura & Noboru Yamamoto** on the recent publication of **Implementing generative artificial intelligence in precision oncology: safety, governance, and significance** in the *Journal of Hematology & Oncology*.

Hamamoto et al. *Journal of Hematology & Oncology* (2026) 19:14
<https://doi.org/10.1186/s13045-026-01781-y>

Journal of Hematology & Oncology

REVIEW

Open Access

Implementing generative artificial intelligence in precision oncology: safety, governance, and significance



Ryuji Hamamoto^{1,2*}, Takafumi Koyama³, Satoshi Takahashi^{1,2}, Tomohiro Yasuda¹, Kazuma Kobayashi^{1,2,3}, Yu Akagi⁴, Nobuji Kouno^{1,2,5}, Kazuki Sudo^{3,6}, Makoto Hirata⁷, Kuniko Sunami⁸, Takashi Kubo⁸, Hiroshi Katayama⁹, Atsuo Takashima¹⁰, Tomonori Taniguchi^{1,2}, Hiromi Matsumoto^{1,2}, Ryota Shibaki^{1,2}, Ken Asada^{1,2}, Masaaki Komatsu^{1,2}, Syuzo Kaneko^{1,2}, Masayoshi Yamada¹¹, Hidehito Horinouchi^{1,2}, Katsuya Tanaka^{1,3}, Yasushi Goto^{1,2}, Ken Kato¹⁰, Yutaka Saito¹¹, Kenichi Nakamura⁹ and Noboru Yamamoto³

Abstract

The paramount challenge in precision oncology lies in further improving quality of life and response rates for individual patients. Efforts toward these goals are steadily expanding the scope of clinical implementation, despite ongoing challenges such as standardization, cost-effectiveness, and data harmonization. Building upon this maturing foundation, generative AI—which has evolved dramatically in recent years—is particularly valuable at this stage of advancing efficiency and adoption as an auxiliary technology linking literature, guidelines, trial protocols, and patient data. Specifically, through mutation interpretation, trial eligibility matching, and tumor board support, it is expected to contribute to advancing standardization, improving cost-effectiveness, accelerating data harmonization, and further accelerating human-centered decision-making. Accordingly, this review surveys the development history of generative AI and its current healthcare applications, organizing its implementation potential for precision oncology along three axes: (1) generative AI-based interpretation of genetic mutations and estimation of their pathological significance; (2) generative AI-driven verification of clinical trial eligibility; and (3) multimodal foundation models for imaging and pathology that compute “tumor phenotypes” using real-world data, contributing to report drafting and molecular surrogate estimation. In response, we propose a strategy centered on retrieval-augmented generation (RAG) and human-in-the-loop (HITL) workflows, encompassing data preparation based on OMOP, mCODE, and FHIR; multicenter prospective evaluation; auditable logs and governance aligned with Good Manufacturing Practice (GMP) and the EU AI Act; and a synthetic data strategy including differential privacy. Ultimately, this approach validates value through real-world outcomes and charts a path toward “learning oncology,” accelerating patient-centered decision-making and clinical trial development.

Keywords Precision oncology, Generative artificial intelligence, Large language model, Vision language model, Transformer, Retrieval-augmented generation



Three Stages of The Journey

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2026 Global Symposium

2026 OHDSI Global Symposium Call for Plenary Sessions

Symposium plenaries provide opportunities to share innovative, community-developed content to empower researchers to generate reliable real-world evidence. The community is currently seeking proposals for our #OHDSI2026 plenaries. These sessions will be 60 minutes in duration and must touch on at least two of following pillars of our community:

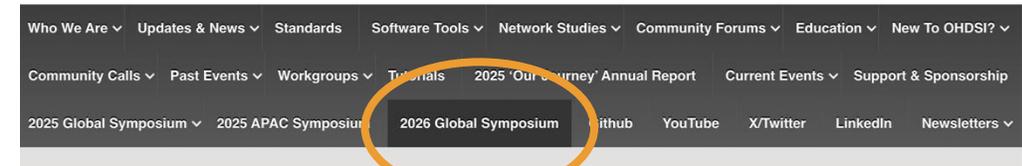
- Open community data standards
- Methodological research
- Open-source development
- Clinical applications

Plenary sessions must also involve three or more on-stage participants across at least two organizations. Sessions may include a combination of keynote talks, panel discussions, interactive activities, and more. We strongly encourage using multiple formats and synthesizing completed research, current perspectives and future calls-to-action to maximize community engagement.

The deadline for proposal submissions is January 30, 2026. Please use the link below to submit your proposal by answering the following questions:

- Name(s) of plenary session organizers:
- Your email address(es):
- Short (2,500 character max) description / abstract of your proposed session:
- Which pillars are you targeting:
- One sentence "pitch" of your session to excite the community:
- Names and roles of individuals who have tentatively agreed to participate in your session:

Deadline to submit proposals for #OHDSI2026 plenaries or tutorials is Feb. 20, 2026!



2026 OHDSI Global Symposium

Oct. 20-22 • New Brunswick, N.J. • Hyatt Regency Hotel

2026 OHDSI Global Symposium Call for Tutorials

Tutorial sessions aim to deliver educational content, led by community members who wish to train our global collaborators on scientific, technical, and other skills that can support advancing OHDSI's mission and the effective use of real-world data and the generation and dissemination of reliable real-world evidence. Examples of prior tutorials offered are provided here: <https://www.ohdsi.org/tutorials>.

Tutorial sessions are 4 hours in duration. Registrants for your tutorial will be requested to pay a registration fee. The fees will be used to offset the costs of the symposium and other OHDSI expenses. Sessions may include a combination of talks, interactive activities, and more. We strongly encourage using multiple formats to maximize community engagement. Your session must include at least three people from at least two different organizations.

The deadline for tutorial proposal submissions is January 30, 2026. Please use the link below to submit your proposal by answering the following questions:

- Name(s) of tutorial session organizers:
- Your email address(es):
- Short (2,500 character) description / abstract of your proposed session:
- Names and roles of individuals who have tentatively agreed to participate in your session:



2026 Europe Symposium

The 2026 OHDSI Europe Symposium returns to Rotterdam next year and will be held **April 18-20.**

Registration is open on the **OHDSI & OHDSI Europe** web sites.

Time	Symposium Agenda - Monday April 20, 2026	Location
8:00	Registration and Coffee	Queen's Lounge
9:00	Welcome to OHDSI Europe <i>Dr. Renske Los, Department of Medical Informatics, Erasmus MC</i> <i>Dr. Aniek Markus, Department of Medical Informatics, Erasmus MC</i>	Theatre
9:05	Journey of OHDSI <i>Prof. Peter Rijnbeek, Chair Department of Medical Informatics, Erasmus MC</i>	Theatre
9:30	Collaborator Showcase - part 1 Moderated by <i>Dr. Egill Fridgeirsson, Department of Medical Informatics, Erasmus MC</i>	Theatre
10:00	Speed networking	Theatre
10:15	Coffee Break & posters National Nodes	Queen's Lounge
11:15	Collaborator Showcase - part 2 Moderated by <i>Dr. Egill Fridgeirsson, Department of Medical Informatics, Erasmus MC</i>	Theatre
11:45	Dreaming about the OHDSI journey ahead <i>Dr. Patrick Ryan, Vice President, Observational Health Data Analytics, Johnson & Johnson</i> <i>Dr. Renske Los, Department of Medical Informatics, Erasmus MC</i>	Theatre

12:15	Lunch break & networking & posters/demo's <i>(Early investigator meeting - 13:00-13:45 Queen's Lounge)</i>	La Fontaine & Odyssee Room
13:45	From dreams to reality <i>OHDSI Titan Award winners</i>	Theatre
14:30	Propositions for collaboration from the National Nodes <i>National Node leads</i>	Theatre
14:45	Coffee break & posters/demo's	La Fontaine & Odyssee Room
16:15	The OH Factor <i>To be announced</i>	Theatre
17:00	Closing	Theatre
17:15	Networking reception	Queen's Lounge



Tutorials Homepage

OHDSI Tutorials

Education is at the heart of OHDSI's mission, and these tutorials showcase the community's commitment to sharing knowledge. Developed and taught by OHDSI faculty, they highlight tools, standards, and best practices that empower collaborators at every level to engage in open science and generate reliable evidence.

2025 Global Symposium

An Introduction to the Journey from Data to Evidence Using OHDSI

Introduction to OHDSI
OHDSI2025 Tutorial: An Introduction to...

- Observational Health Data Sciences and Informatics (OHDSI, pronounced "Odyssey") was founded in 2014.
- Central coordinating center housed at Columbia University.
- A multi-stakeholder, interdisciplinary evidence collaborative to bring out the value of health data at large-scale analytics.

Faculty: Erica Voss, Yong Chen, Katy Sadowski, Nicole Pratt, Roger Carlson, Chongliang (Jason) Luo

Developing and Evaluating Your Extract, Transform, Load (ETL) Process to the OMOP Common Data Model

OMOP Common Vocabulary Model
OHDSI2025 Tutorial: Developing and E...

What it is

- Compiled standards from disparate public and private sources and some OMOP-grown concepts
- Standardized structure to house existing vocabularies used in the public domain

What it's not

- Static dataset – the vocabulary updates regularly to keep up with the continual evolution of the sources
- Product – vocabulary and improvement is ongoing activity that requires community participation and support

Faculty: Clair Blacketer, Karthik Natarajan, Evanette Burrows, Max Adulyanuksol, Maxim Moinat

Using the OHDSI Standardized Vocabularies for Research

OHDSI Standardized Vocabularies
OHDSI2025 Tutorial: Using the OHDSI ...

Data in US after to 2005: ICD-10
Data in US after to 2005: ICD-9
Data in UK: Read
Data in USA: SNOMED

Common reference standard: SNOMED
Common reference standard: SNOMED

Faculty: Anna Ostropelets, Vlad Korsik, Polina Talapova, Masha Khitrin

Population-Level Effect Estimation Applications to Generate Reliable Real-World Evidence

OHDSI2025 Tutorial: Population-Level ...

Population-Level Effect Estimation Applications to Generate Reliable Real-World Evidence

George Hripscak
Martijn Schuemie
Linying Zhang
Tara Anand

Faculty: George Hripscak, Martijn Schuemie, Linying Zhang, Tara Anand

Clinical Characterization Applications to Generate Reliable Real-World Evidence

Complementary evidence to inform the patient
OHDSI2025 Tutorial: Clinical Characte...

Clinical characterization: What happened to the patient?
Patient-level: What is the patient's experience?
Population-level effect estimation: What are the causal effects?

inference
causal inference

Faculty: Patrick Ryan, Aniek Markus, Hsin Yi "Cindy" Chen, Azza Shoalbi

Patient-Level Prediction Applications to Generate Reliable Real-World Evidence

Prediction Problem Definition
OHDSI2025 Tutorial: Patient-Level Pre...

Observation Window
Time-at-risk
outcome

t = 0

Among a target population (T), we aim to predict which patients at a defined moment in time (t=0) will experience some outcome (O) during a time-at-risk.

Faculty: Jenna Reys, Egill Fridgerosson, Ross Williams

ohdsi.org/tutorials



#OHDSISocialShowcase This Week

Monday

Data Coordinating Center for the OHDSI Ophthalmic Network: A Proposal for the NEI OHDSI Challenge

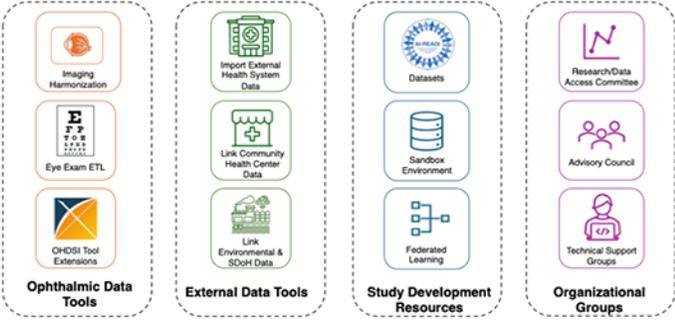
(Michelle R. Hribar, Mohammad Adibuzzaman, Mitchell Brinks, Aiyin Chen, David Huang, Hiroshi Ishikawa, Yali Jia, Elizabeth Silbermann, Xubo Song, Ou Tan)

Data Coordinating Center for the OHDSI Ophthalmic Network: A Proposal for the NEI OHDSI Challenge

Michelle R. Hribar PhD¹, Mohammad Adibuzzaman PhD², Mitchell Brinks MD¹, Aiyin Chen MD¹, David Huang¹, Hiroshi Ishikawa MD¹, Yali Jia PhD¹, Elizabeth Silbermann MD, MCR³, Xubo Song PhD^{1,4}, Ou Tan PhD¹

¹Casey Eye Institute Department of Ophthalmology, Oregon Health & Science University, Portland, Oregon
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³Department of Neurology, Oregon Health & Science University, Portland, Oregon
⁴Division of Oncological Sciences, Oregon Health & Science University, Portland, Oregon




BACKGROUND	RESULTS	RESULTS
<ul style="list-style-type: none"> The Observational Health Data Sciences and Informatics (OHDSI) Eye Care and Vision Research workgroup has been standardizing ophthalmic data to the OMOP common data model^{1,2} The National Eye Institute issued a challenge to generate ideas for the development of an OHDSI Ophthalmic Network within the OHDSI Evidence Network³ Researchers at Oregon Health & Science University (OHSU) submitted a successful proposal for a data coordinating center (DCC) for the OHDSI Ophthalmic Network 	<p>Data Coordinating Center for OHDSI Ophthalmic Network</p>  <p>Figure 1: Planned structure of the proposed data coordinating center for the OHDSI Ophthalmic Network</p>	<p>Study Development Resources</p> <ul style="list-style-type: none"> Resources to support research, network study development, and federated learning studies Sandbox environments as well as publicly available databases <p>Organizational Groups</p> <ul style="list-style-type: none"> Groups that provide oversight for research, data access, and research directions; will include patients Tech support and user groups to support becoming a member of the Ophthalmic Network, develop & run network studies, coordinate with the OHDSI Evidence Network, & support federated learning studies <p>Possible research the Ophthalmic Network could support:</p> <ul style="list-style-type: none"> Longitudinal glaucoma progression studies Myopia causes Oculomics (biomarkers for systemic disease in retinal imaging) Monitoring of multiple sclerosis development & progression Impacts of social determinants of health on eye disease Testing and validation of models developed elsewhere
<p>METHODS</p> <ul style="list-style-type: none"> A group of informaticists, ophthalmologists, vision scientists, and a neurologist at OHSU planned aspects of a data coordinating center for the OHDSI Ophthalmic Network: <ul style="list-style-type: none"> Applications and research opportunities Tools Resources Organization groups 		
<p>RESULTS</p> <p>We propose the DCC will consist of the following elements:</p> <p>Ophthalmic Data Tools</p> <ul style="list-style-type: none"> Tools to transform and standardize ophthalmic electronic health record data and imaging <p>External Data Tools</p> <ul style="list-style-type: none"> Enhance data available at partners with community level data (social determinants of health and environmental exposures) Import patient data from other health systems Include data from community health centers' screening data 		<p>CONCLUSIONS</p> <ul style="list-style-type: none"> The future OHDSI Ophthalmic Network will need a data coordinating center to support participation and research The NEI OHDSI Challenge award will fund initial work towards building the data coordinating center and integrating with OHDSI <p>REFERENCES</p> <ol style="list-style-type: none"> Hallig S, Khawaja AP, Rodrigues IAS, et al. Gap Analysis of Glaucoma Examination Concept Representations within Standard Systematic Nomenclature of Medicine - Clinical Terms. <i>Ophthalmol Glaucoma</i>. Published online August 13, 2024. doi:10.1016/j.ophgl.2024.08.001 Cai CX, Helleberg W, Boland MV, et al. Advancing Toward a Common Data Model in Ophthalmology: Gap Analysis of General Eye Examination Concepts to Standard Observational Medical Outcomes Partnership (OMOP) Concepts. <i>Ophthalmol Sci</i>. 2023;3(4):100391. doi:10.1016/j.xops.2023.100391 NEI Expand OHDSI Initiative for Eye Care and Ocular Imaging Challenge. challenge.gov. 2024. Accessed November 18, 2024. https://www.challenge.gov/

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#OHDSISocialShowcase This Week

Tuesday

Standardizing the Combat Trauma Registry Insights and Lessons Learned

(Darshan Thota, Jonathan Stallings, Jennifer Gurney, Michael Shiels, Thorsten Mueller, Matthew Standlee, David Barraza, David Winfeld)



STANDARDIZING THE COMBAT TRAUMA REGISTRY: INSIGHTS AND LESSONS LEARNED
Darshan Thota MD, Jonathan Stallings PhD, Jennifer Gurney MD, Michael Shiels RN, Thorsten Mueller MS, Matthew Standlee MS, David Barraza MS, David Winfeld
Joint Trauma System, the DoD Center of Excellence for Trauma, DHA



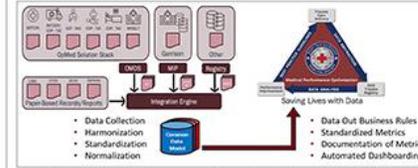
INTRODUCTION

- The Joint Trauma System (JTS) saves lives with data.
- The JTS accomplishes this by improving trauma readiness and outcomes through evidence-driven performance improvement.
- Having high-quality data is the foundation of improving combat casualty care outcomes with novel analytical insights, knowledge and actionable recommendations to all levels of influence throughout the continuum of care.
- The operational medicine landscape is a complicated mixture of limited personnel, constrained resources, and communication challenges.
- Due to lack of airspace superiority during large-scale combat operations, the US will have to contend with more patients, sicker patients and longer hold times.
- The JTS Modernization Process will transform the capture of clinical data from source, store, process and normalize data into the Observation Medical Outcome Partnership Common Data Model (OMOP CDM).
- The OMOP CDM will enable a research-ready version of the DoD Trauma Registry for high quality, repeatable and reliable studies to be performed on specific cohorts of interest throughout the Military Health System.
- This new Modernization effort will automate data ingestion, decrease dependency on manual data abstraction, and take advantage of existing cloud computing technologies.
- Emerging technologies can be leveraged for predictive logistics modelling, resource allocation, and clinical practice guideline (CPG) generation.

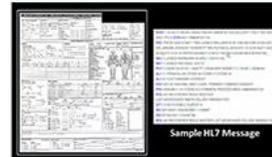
OBJECTIVES

- Aim 1:** Understand the Operational Medicine Continuum of Care
- Aim 2:** Understand the importance of having high quality, normalized, research ready data
- Aim 3:** Demonstrate the value of OMOP CDM in data normalization and reproducibility for the MHS
- Aim 4:** Investigate the utility of a research ready registry in applying AI/ML algorithms, with a focus on improving patient outcomes, CPG optimization, decision-making, and predictive analytics.

RESULTS



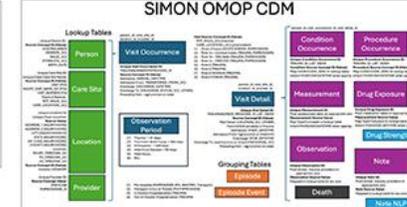
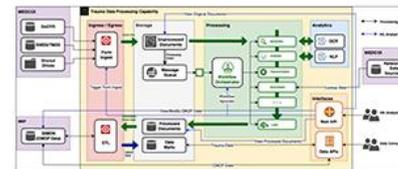
New Data Modernization to generated actionable insights



Transform paper records into digital representations

Source Field	Source Value	OMOP Value	Concept ID	Description
adm_date	2016-01-15	2016-01-15	42000000000000000000	Admission Date
adm_time	08:00	08:00	42000000000000000000	Admission Time
adm_location	100	100	42000000000000000000	Admission Location

Individual field level mapping for Conditions, Procedures, and Medications



Our current approach relies on pre-processing and cleaning our data prior to including all the field level mappings

Table	Variable	User Guide	Type	Unique Values
Observation Period	observation_period_id	A Person can have multiple discrete Observation Periods which are identified by the Observation_Period_ID	numeric	83308
Observation Period	person_id	It is assumed that every person with a different unique Observation Period is a distinct person and should be treated independently.	numeric	92038
Observation Period	observation_period_start_date	Use this date to determine the start date of the Observation Period.	Date	7255
Observation Period	observation_period_end_date	Use this date to determine the end date of the period for which we can assume that all events for a Person are recorded.	Date	7255
Observation Period	period_type_concept_id	This field can be used to determine the provenance of the Observation Period as to whether the period is Observation Period from an insurance enrollment file, DRG Healthcare encounters, or other sources.	numeric	1

The Period of Observation represents each trauma binder

Table	Variable	User Guide	Type	Unique Values
Visit Occurrence	visit_occurrence_id	Use this to identify unique visits between a person and the health care system. This identifier is unique across all tables to associate events with a visit.	numeric	89333
Visit Occurrence	person_id	It is assumed that every person with a different unique Observation Period is a distinct person and should be treated independently.	numeric	92038
Visit Occurrence	visit_start_date	The first calendar day of a visit is the start of the visit. The last calendar day of a visit is the end of the visit. The visit should be started and ending on the visit start and end date.	numeric	8
Visit Occurrence	visit_start_time	The visit start time, the start time in hours, minutes and seconds of the visit start date and time.	numeric	7275
Visit Occurrence	visit_start_location	Use this to identify the location of the visit start date and time.	numeric	96000
Visit Occurrence	visit_end_date	For required visits the end date is the date of the visit end date and time. For non-required visits the end date is the date of the visit end date and time.	numeric	7427

The Visit Occurrence represents each trauma record



CONCLUSIONS

- The modernization effort will turn raw inputs into meaningful, actionable near-real insights for Combatant Commanders and down-range clinicians.
- The OMOP CDM facilitates data normalization, analysis, and reliable, repeatable network studies.
- There are nearly 146k trauma records with 99k individual patients in the DoD Trauma Registry.
- The majority of patients receive care at Role 2 and Role 3.
- Custom codes were created for roles of care, Combatant Commands and specific discharge locations.
- The OMOP CDM will allow data scientist, researchers and clinicians easy-to-access, standardized and machine-readable data sets for analysis.
- Future development will focus on building a graphical user interface for abstractors, implementing a QA/QC process adding secondary tables such as Notes and NLP, and developing dashboards

ACKNOWLEDGEMENTS

- The author(s) acknowledge COL Jennifer Gurney for providing oversight for this presentation.
- The author(s) acknowledge Dr. Jonathan Stallings for providing review for this presentation.
- The author(s) acknowledge Mr. Michael Shiels for providing contribution for this presentation.

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Use of the Joint Trauma System's Department of Defense Trauma Registry data in this presentation without expressed acknowledgment is prohibited. The views expressed herein do not constitute an endorsement by the DoD, VA, or any government entities of the product, approach, or information contained in this presentation. The investigators have adhered to the policies for protection of human subjects as prescribed in 45 CFR 46.





#OHDSISocialShowcase This Week

Wednesday

Standardizing Time Toxicity Metrics for Tracheostomy Patients Across Health Systems Using OMOP-CDM

(Benjamin Martin, Abigail Martin, Jen Wooyeon Park, Jordan Kuiper, Renee Boss, Emily Johnson, Jim Fackler, Khyzer Aziz)

Title: Standardizing Time Toxicity Evaluation for Tracheostomy Patients Across Health Systems Using OMOP-CDM

Characterization of Tracheostomy Healthcare Utilization Among All Age Groups

PRESENTER: Ben Martin

Background

Tracheostomy is a procedure commonly performed in both emergent and elective settings across a wide range of patient populations, including neonates and critically ill adults.¹ While this intervention can be life-sustaining, it may also impose significant burdens on patients and families. "Time toxicity," defined as time spent receiving healthcare rather than at home, has emerged as a valuable metric for evaluating the burden of care.^{2,3} It is increasingly important to include this dimension in shared decision-making, especially when the time required for treatment may outweigh its survival benefits. Despite its relevance, time toxicity has not been systematically measured in harmonized observational health data, particularly across age groups.

Methods

We developed a custom SQL-based feature to measure time toxicity in tracheostomy patients across all age groups using data structured according to the OMOP Common Data Model. Our algorithm quantifies healthcare system contact by measuring cumulative time spent in various visit types (e.g., inpatient, outpatient, emergency department) in the year following tracheostomy. We applied this to an observational cohort of patients who underwent planned tracheostomy procedures, stratified into four age groups (infants, pediatric, young adults, and adults). In addition to time toxicity, we characterized patient demographics, comorbidities, mortality, and healthcare utilization metrics including length of stay and visit frequency. Data were sourced from the OMOP-mapped electronic health records of a large academic health system.



A Standard Time Toxicity Metric for OMOP-CDM and ATLAS

Table 2. Time Toxicity after Tracheostomy by Visit Type and Age Group

Visit Type	Infants (age <1)	Pediatric (age 1-18)	Young Adults (age 18-26)	Adults (age 26+)	All Stratas
Home Visit	0.07%	0.08%	0.03%	0.07%	0.07%
Telehealth Visit	0.11%	0.12%	0.10%	0.11%	0.11%
Emergency Room Visit	0.21%	0.22%	0.19%	0.13%	0.14%
Outpatient Visit	0.46%	0.72%	0.74%	0.80%	0.78%
Inpatient Visit	48.48%	35.60%	28.09%	33.71%	34.25%
All Visits	49.34%	36.74%	29.15%	34.82%	35.35%

Table 1. Demographics, Comorbidities, and Healthcare Utilization by Age at Tracheostomy

Domain	Variable	Infants (age <1)	Pediatric (age 1-18)	Young Adults (age 18-26)	Adults (age 26+)	All stratas
Gender	FEMALE	44.26%	55.29%	25.56%	41.84%	41.77%
	MALE	55.74%	44.71%	74.44%	58.16%	58.23%
Race	American Indian or Alaska Native	0.00%	0.00%	1.11%	0.31%	0.32%
	Asian	0.00%	2.35%	3.33%	2.36%	2.33%
	Black or African American	45.90%	31.76%	45.56%	37.65%	37.94%
	White	40.98%	51.76%	36.67%	48.52%	48.02%
	Other	13.11%	14.12%	13.33%	11.17%	11.39%
Visit Counts and LOS	ER Visit Count - After Index Visit	2.90	1.55	1.14	0.44	0.57
	ER Visit Count - Before Index Visit	0.02	0.80	0.69	0.68	0.67
	IP LOS - After Index Visit (max)	19.02	26.55	25.82	20.84	21.25
	IP LOS - Index Visit	176.48	76.56	53.16	50.74	54.73
	IP LOS - Prior to Index Visit (max)	42.90	40.03	12.14	11.80	13.20
	IP Visit Count - After Index Visit	4.15	3.05	2.19	1.69	1.81
	IP Visit Count - Prior to Index Visit	0.23	1.81	0.98	1.06	1.06
	OP Visit Count - After Index Visit	131.43	84.07	51.06	42.29	46.16
	OP Visit Count - Before Index Visit	3.39	24.40	10.02	15.82	15.60
	time (days) between cohort start and end	426.97	305.29	281.34	201.65	213.41
Comorbidities, Sequela	Essential hypertension	37.70%	45.88%	54.44%	59.69%	58.50%
	Acute hypoxemic respiratory failure	37.70%	54.12%	45.56%	51.31%	50.87%
	Sepsis	36.07%	32.94%	43.33%	50.48%	49.29%
	Dysphagia	31.15%	37.65%	36.67%	48.21%	47.03%
	Acute kidney injury	29.51%	37.65%	30.00%	48.52%	47.03%
	Hyperosmolality and/or hypernatremia	24.59%	41.18%	40.00%	45.29%	44.46%
	Hypokalemia	42.62%	58.82%	48.89%	43.50%	44.19%
	Anemia	45.90%	40.00%	40.00%	43.50%	43.31%
	Acidosis	54.10%	40.00%	37.78%	34.08%	34.89%
	Atelectasis	62.30%	57.65%	37.78%	29.10%	31.17%
	Acute on chronic hypoxemic respiratory failure	70.49%	62.35%	27.78%	28.27%	30.42%
	Acute tracheitis without obstruction	85.25%	63.53%	16.67%	15.05%	18.43%
	Mortality	30-day Mortality	0.00%	0.04%	0.12%	4.63%
Total Mortality		0.67%	0.67%	0.32%	21.68%	23.34%

Results

Time toxicity varied significantly across age groups and visit types (Figure 1). Infants had the highest proportion of time spent in healthcare settings (49.3%), while young adults had the lowest (29.2%). Inpatient visits accounted for the majority of time toxicity across all groups. Our Table 1 summarizes population characteristics, including gender, race, mortality, healthcare utilization, and the 15 most prevalent conditions other than tracheostomy. Notably, comorbidities such as acute hypoxemic respiratory failure, hypertension, and gastroesophageal reflux disease were common in all age groups but especially prevalent in adults and infants.

Conclusion

Our approach enables standardized, scalable, and reproducible measurement of time toxicity using OMOP-harmonized data. By incorporating this metric into routine analytics, researchers and clinicians can better understand the real-world burden of interventions like tracheostomy. We invite the OHDSI community to adopt and refine our approach for broader use in patient-centered outcomes research and shared decision-making tools.

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#OHDSISocialShowcase This Week

Thursday

Impact of Comorbid Depression on Insulin Initiation and Cardiovascular Events Among Patients with Type 2 Diabetes Mellitus: A Multinational Cohort Study

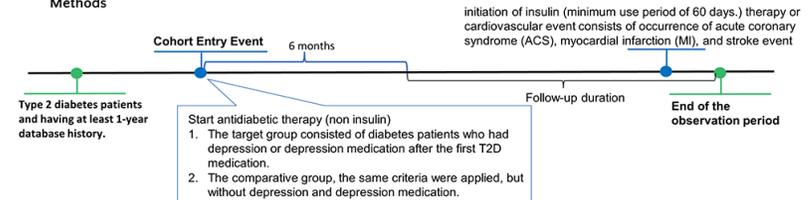
(**Christianus Heru Setiawan**, Seonghwan Shin, Seonji Kim, Seng Chan You, Phan Thanh-Phuc, Septi Melisa, Muhammad Solihuddin Muhtar, Nguyen Phung-Anh, Jason C. Hsu)

This multinational OHDSI-based cohort study identified a significant association between comorbid depression and increased risks of insulin initiation and cardiovascular outcome in patients with type 2 diabetes mellitus.

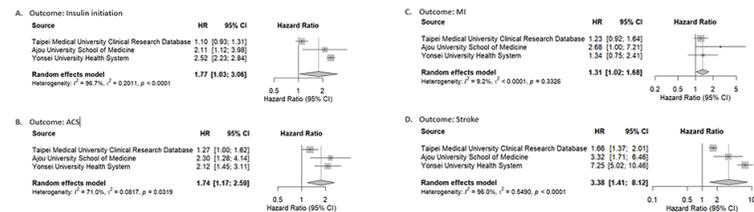
Impact of Comorbid Depression on Insulin Initiation and Cardiovascular Events Among Patients with Type 2 Diabetes Mellitus: A Multinational Cohort Study

Background: Individuals diagnosed with (T2D) have a higher risk of experiencing depression compared to those without the condition. Hyperglycemia-induced neurochemical dysregulation promotes the progression of type 2 diabetes. Furthermore, depression can lead to poor outcomes (cardiovascular events) and may cause insulin resistance. This comorbidity may render diabetes oral medications ineffective, and insulin therapy may be necessary.

Methods



Results



We are currently expanding our multinational OHDSI-based study. We warmly invite your site to join this collaboration.

The full analytic package is available here: <https://github.com/OHDSI-TAIWAN/T2DM-and-Depression>

If interested, kindly reach out to jasonhsu@tmu.edu.tw (Jason C. Hsu) or d301111004@tmu.edu.tw (Christianus Heru Setiawan)

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#OHDSISocialShowcase This Week

Friday

PandemicPrediction: three-year temporal validation of SEEK-Cover models during the Covid pandemic

(Egill Fridgeirsson, Jenna Reps)



PandemicPrediction: three-year temporal validation of SEEK-Cover models during the Covid pandemic

Egill A. Fridgeirsson¹, Jenna M. Reps^{1,2}

¹Department of Medical Informatics, Erasmus University Medical Center, Rotterdam, the Netherlands

²Johnson & Johnson, Raritan, NJ, USA

1. Pre-existing SEEK-COVER models (developed on influenza data)

Parsimonious

Features: phenotype covariables + demographics

COVER-F — fatality
COVER-H — hospitalization
COVER-I — respiratory failure/insufficiency

Data-driven

Features: all conditions + drugs + demographics

dataDrivenF — fatality
dataDrivenH — hospitalization
dataDrivenI — respiratory failure/insufficiency

Fixed weights (no updating) — all models

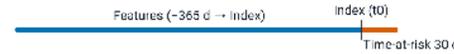
2. New target population (COVID-19 patients)

Data source: Optum Clinformatics

Inclusion: COVID-19 diagnosis
OR positive SARS-CoV-2 test

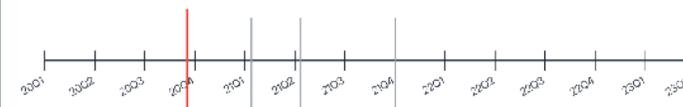
Study period: Jan 2020 – Jun 2023

Index: earliest diagnosis/test; features from prior 1 year
Time-at-risk: 30 days post-index (all outcomes)



3. Temporal validation by quarter

Apply fixed models to each 3-month window



Validate each quarter
Compute AUROC and Eavg

Vaccine Variants



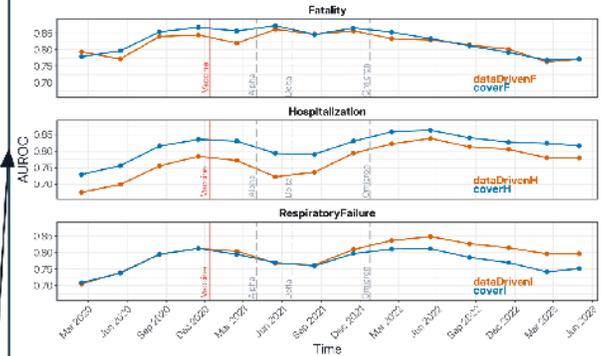
Contact: e.fridgeirsson@erasmusmc.nl



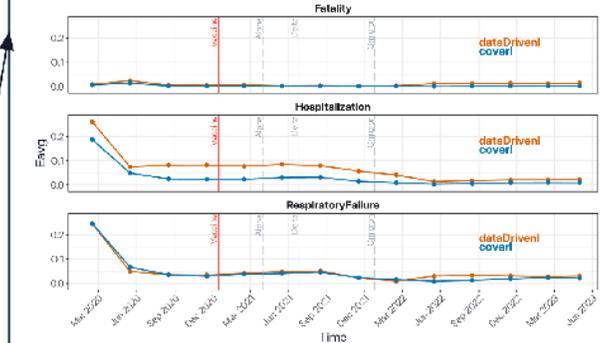
References
Williams, R.C., Michus, A.F., Ying, G. et al. SEEK-COVER: using a disease prior to rapidly develop and validate a personalized risk calculator for COVID-19 outcomes in an ICD national network. *BMJ Med Res Innov* 2023; 10(1):e000550. <https://doi.org/10.1136/bmjmed-2022-000550>

4. Results

Discrimination performance



Calibration performance





Where Are We Going?

**Any other announcements
of upcoming work, events,
deadlines, etc?**



Three Stages of The Journey

Where Have We Been?

Where Are We Now?

Where Are We Going?



**The weekly OHDSI community call is held
every Tuesday at 11 am ET.**

Everybody is invited!

Links are sent out weekly and available at:

ohdsi.org/community-calls-2025