OHDSI Tuesday 20-May-2025

Metastatic Bladder Cancer Guideline Study

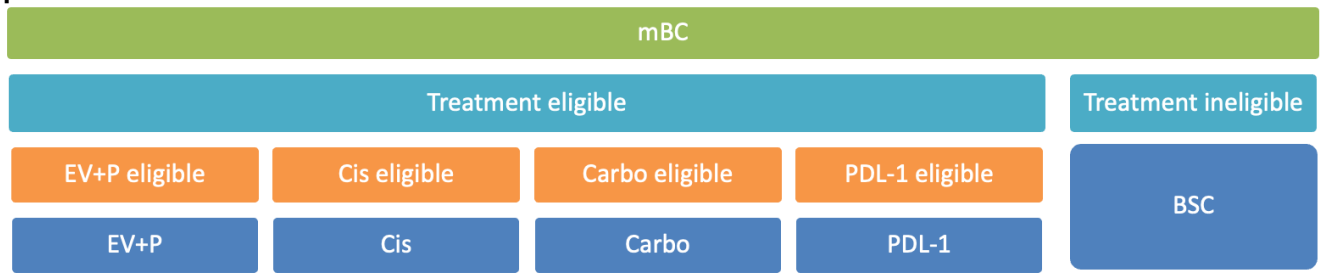
Integration of RWE into clinical guidelines

Our approach:

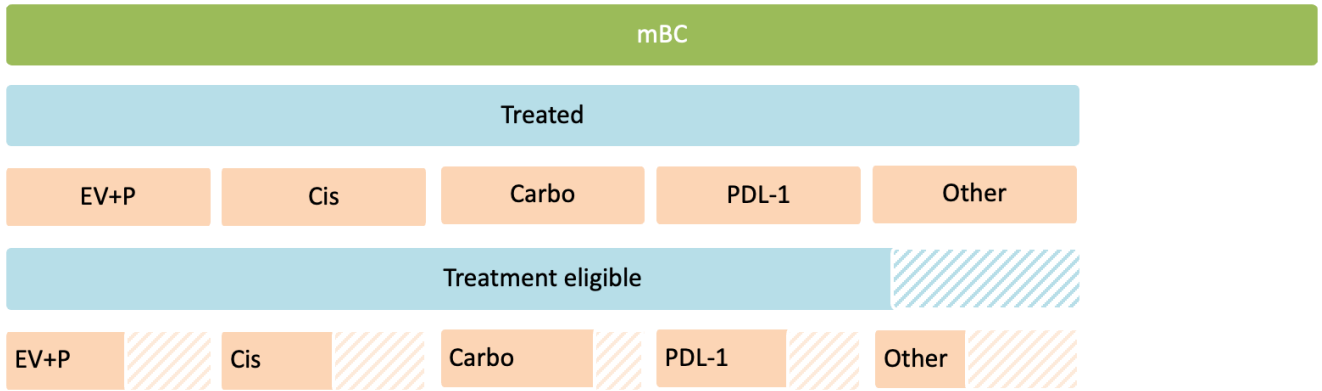
1. decompose guideline recommendations into structured decision nodes
2. evaluate the feasibility and validity of addressing questions in the research networks
3. perform targeted studies to inform recommendations where high-quality RWE can fill significant evidence gaps

Key Objective:
Assessing Relevance, Adherence, and Generalizability

Expectation



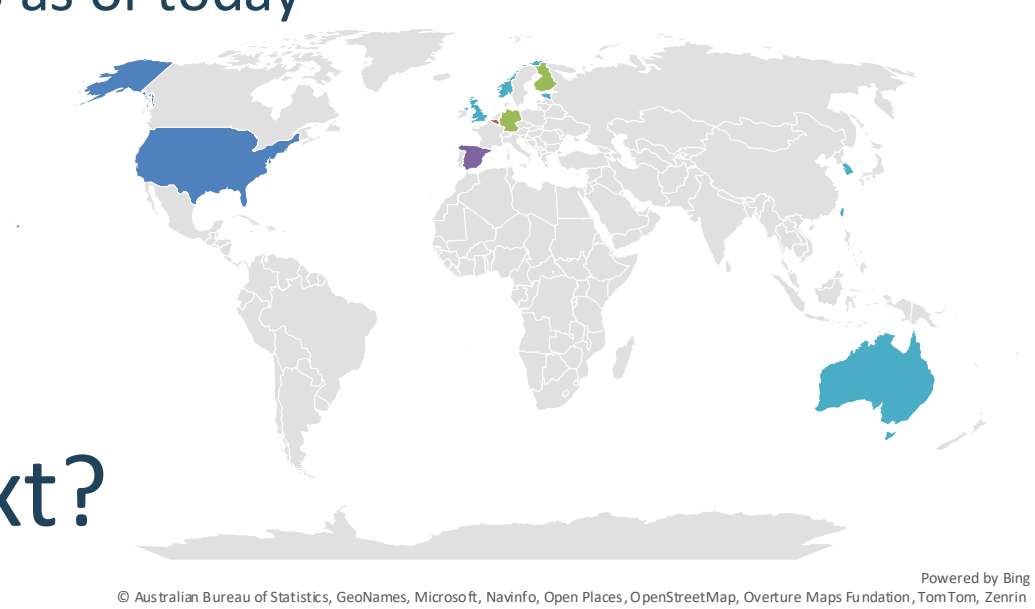
Reality



1. Are there patients eligible for each treatment group?
2. Are treatment eligible treated?
3. Are treatment eligible getting the recommended treated?
   - By eligibility group, look at the treatment pattern to assess adherence.
4. Were treated eligible for treatment?
   - For each pair of treated and eligible & treated cohorts, assess
     - Cohort overlap
     - Cohort comparison
5. Outcomes for each treatment group irrespective of eligibility

Where are we?

- Dissected decision nodes from the mBC guideline (available in Teams)
- Reached out to data partners and recruited 28 as of today



What's next?

- Data partners engagement:
  - 24 performed oncology data readiness assessment, 4 in progress
  - Additional quality assessment under way
- Study protocol will be distributed for comments on May 21

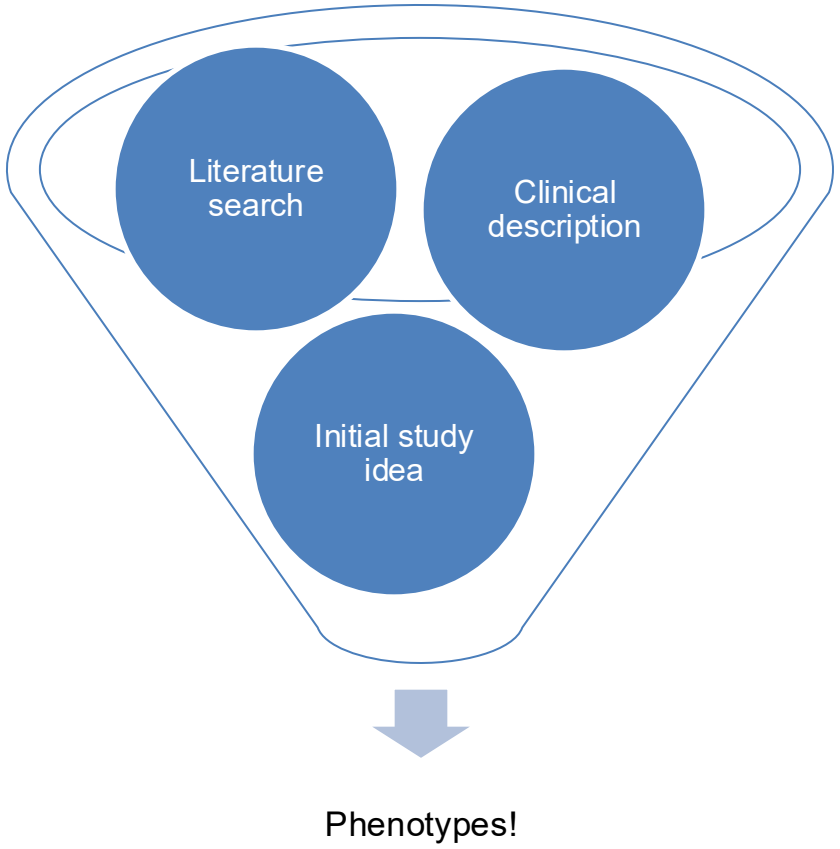
FEP2 study progress

Tatsiana Skuhareuskaya

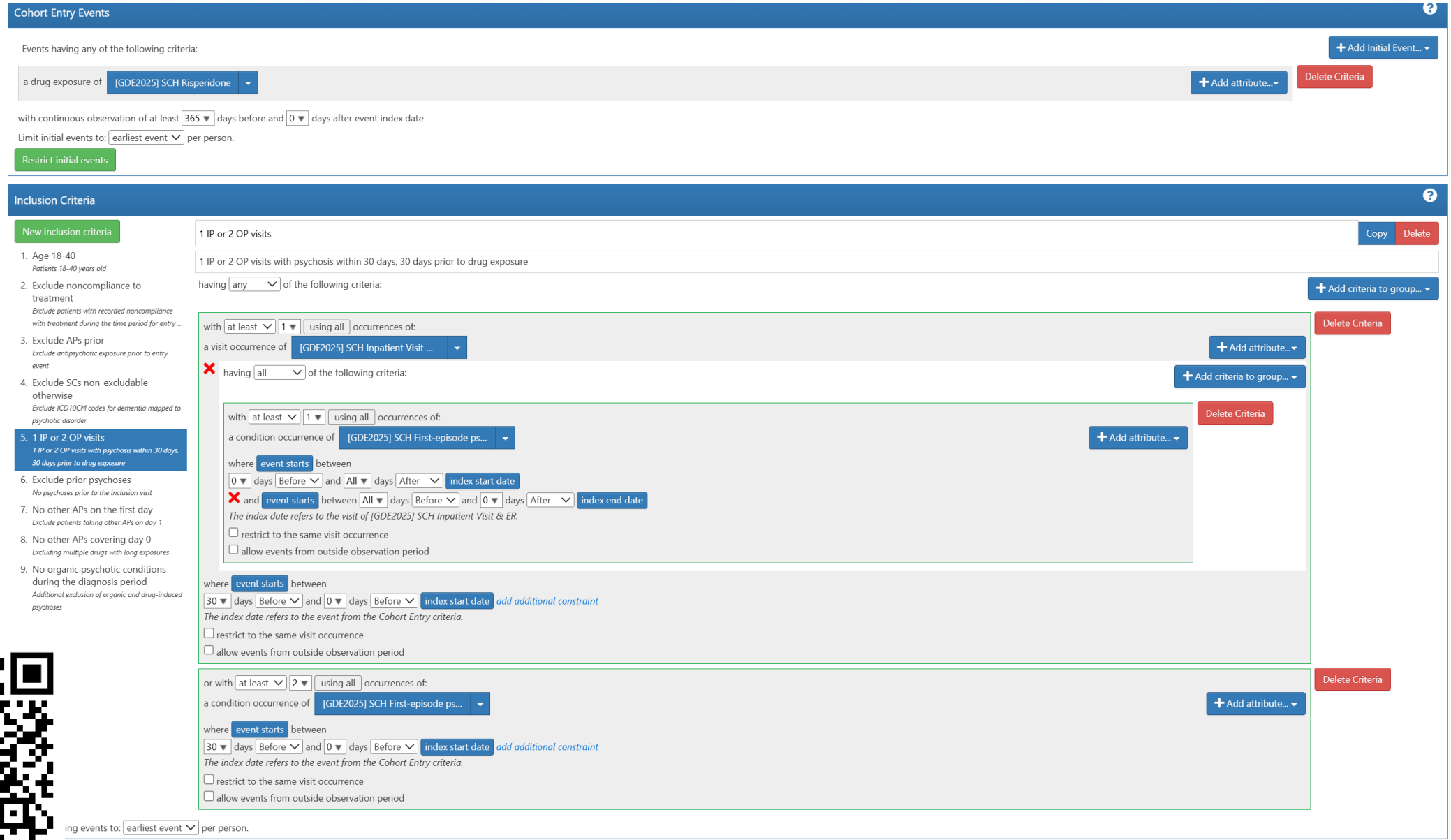
Where we started

- In patients with **first-episode psychosis**, does exposure to **<antipsychotic 1>** have a different risk of **<rehospitalization>** within **<the following 6 months>** relative to **<antipsychotic 2>**?

- **Target:** antipsychotic 1
- **Comparator:** antipsychotic 2
- **Indication:** first-episode psychosis
- **Outcome:** rehospitalization
- **Time at Risk:** 6 months



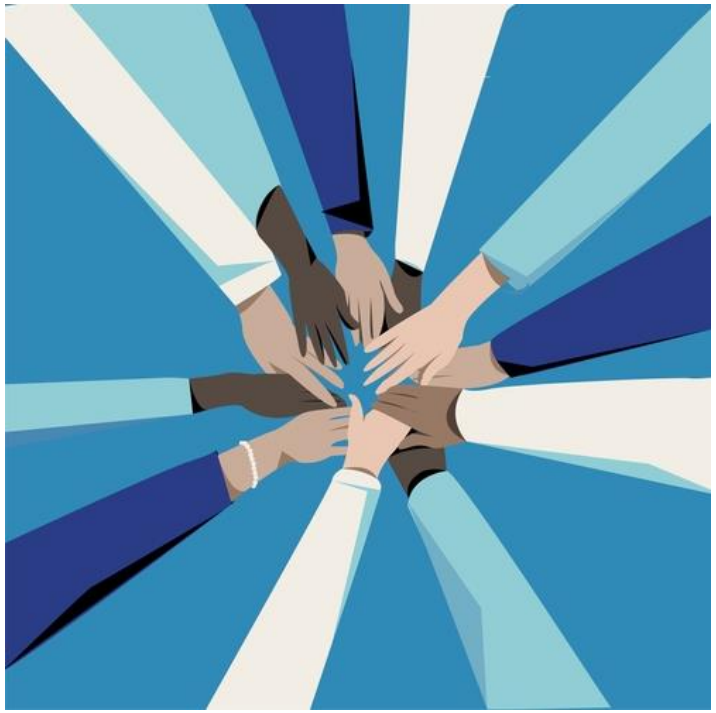
We faced challenges but were victorious☺



Link to the latest CohortDiagnostics results

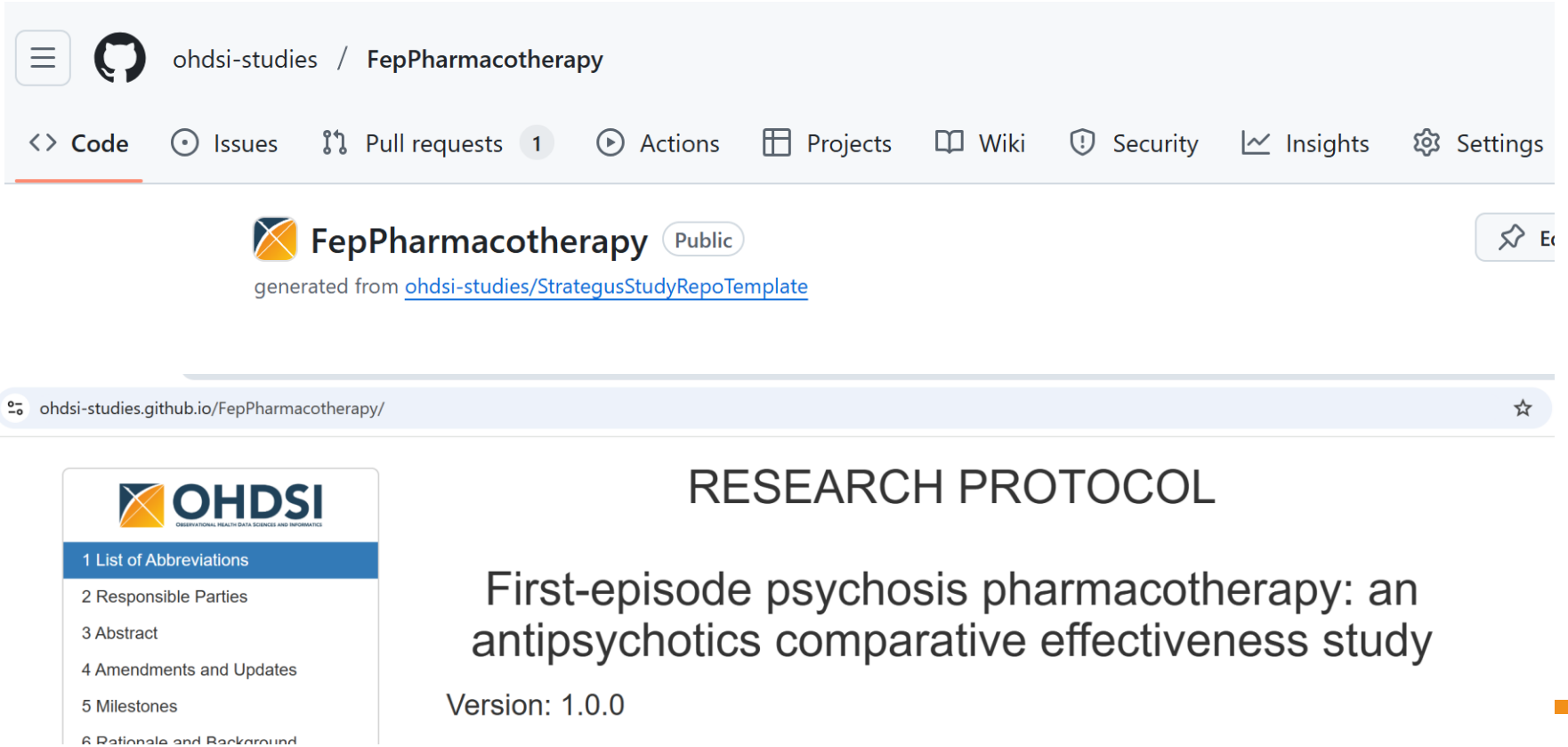
DataDiagnostics

- We have found the potential Data Partners and are already in contact with some of them



Repository, protocol and script

- The study repo has been created
- The first version of the protocol is published
- Study specifications script is in testing



Next steps

- Finishing touches to the protocol and scripts
- Reach out to the data partners with the final version of the protocol and specifications
- Run the study
- Gather and assess the results

Huge thanks to the Phenotyping and Psychiatry WGs and Clair Blacketer for your work, support and ideas!

*If you are interested to contribute, please reach out to me via OHDSI Teams (**Tatsiana Skuhareuskaya**) or email **tatsiana_Skuhareuskaya@epam.com***

OHDSI Network Study 2025: Rheumatic Disease Treatment and Infection Risk

Coordinating Site: Johns Hopkins University

PI: Chris Mecoli

Ben Martin, Will Kelly, Christelle Xiong, Erik Westlund

Recap Background for Study

- Infection is a major cause of morbidity and mortality in rheumatic disease
- Little known about ‘less common’ rheumatic diseases and infection risk with various immunosuppression medications (most in RA)
- Almost nothing known about combination therapy (real life)
- Reflected in absence of evidence-based guidelines
  - “need for additional studies”

(1) What's been done

- Created target phenotypes/cohorts informed by literature
  - Lupus, dermatomyositis, scleroderma, uveitis (prevalent)
  - Drug exposures (bunch of different immune suppressing drugs)
  - Infectious outcomes (shingles [VZV], pneumocystis [PCP], progressive multifocal leukoencephalopathy [PML])

- Iterated phenotypes via Cohort Diagnostics run by OHDSI (Thanks Anna et al!)
  - Modified also based on expert input (rheum, infectious diseases)

- Feasibility check across OHDSI Evidence Network (Thanks Clair!)
  - >30 potential data partners can probably run at least some of our analyses

(2) What we are working on

- Study design / protocol
  - Probably bit off more than we can chew → focus more on infection than cancer
  - Soliciting feedback from pharmacoepidemiologists in the rheum/ID world
  - Trying to take into account EHR and claims data strengths/weaknesses
    - E.g. vaccination status
- Working on creation of Strategus test package
- Working on contacting/confirming data partners

(3) What we could use help with

- Reviewing our study design/protocol
  - Epidemiologic rigor? Additional sensitivity analyses?
  - Feasible analytical plan?
  - Red flags?

- Reviewing our Strategus test package code

- Confirming data partners that may be interested
  - cmecoli1@jhmi.edu email me!

Timeline

- Plan to have finalized protocol/Strategus test package by mid/end of summer (or sooner!)

Wilmer Eye Institute
Johns Hopkins Medicine

GDE2025: Diabetic Retinopathy Screening Network Study

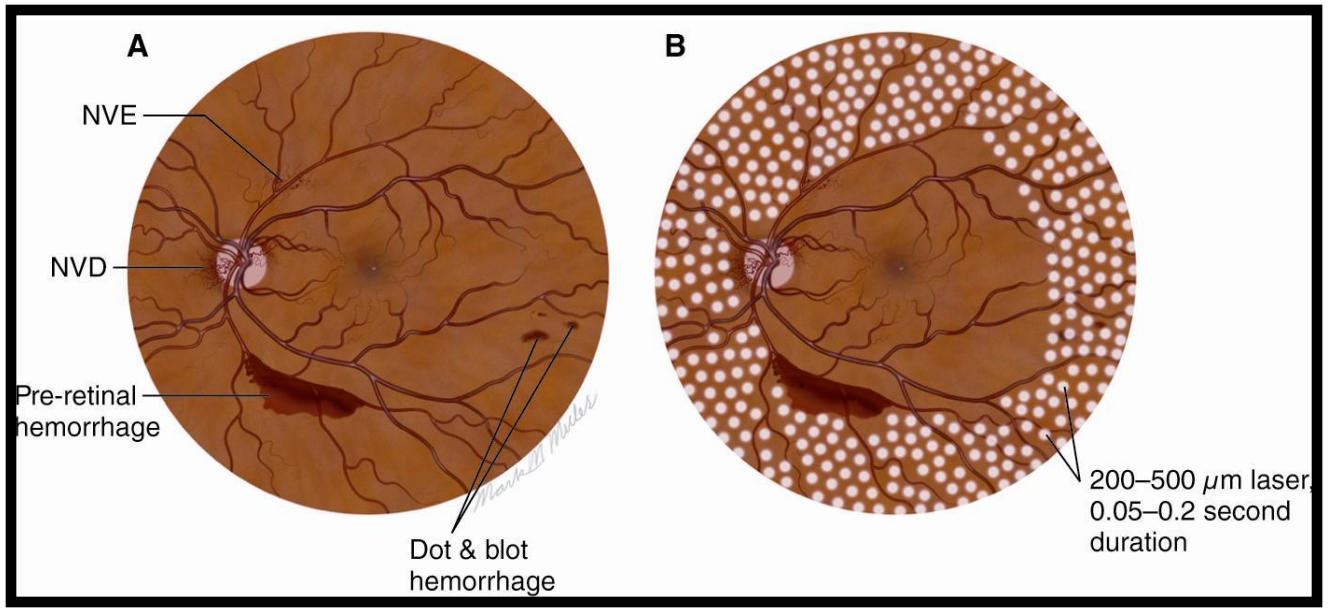
Cindy X. Cai, MD
The Jonathan and Marcia Javitt Rising Professor
Assistant Professor of Ophthalmology, Retina Division, The Wilmer Eye Institute
Assistant Professor of Medicine, Biomedical Informatics and Data Science, Division of General Internal Medicine, Department of Medicine
Johns Hopkins University School of Medicine

Guideline recommend eye exam at time of T2DM diagnosis & at least annual eye exams

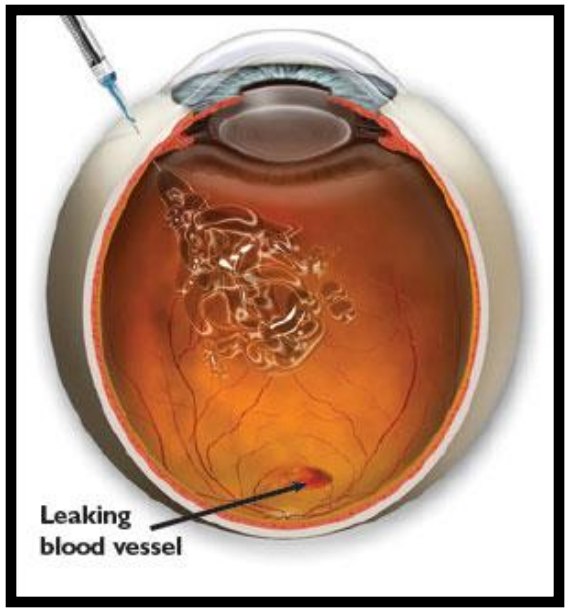
<50% of patients with T2DM receive DR screening

Diabetic retinopathy leading cause of vision loss

Timely treatment reduces risk of blindness by 90%



Laser

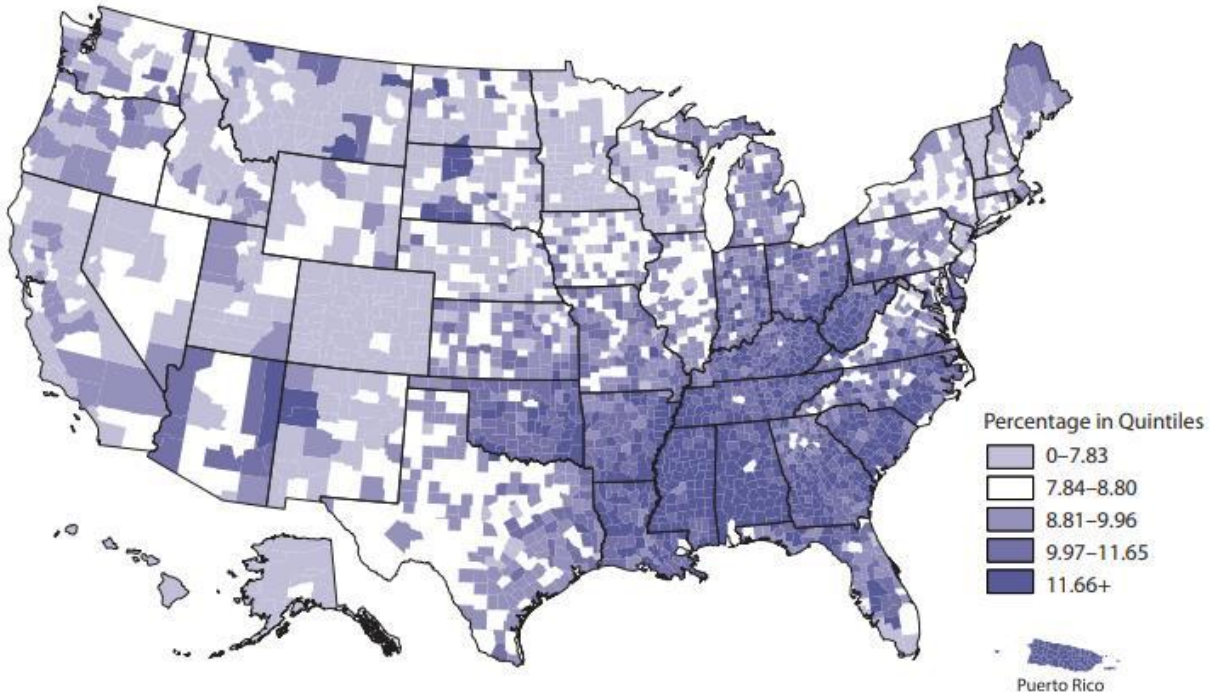


Intravitreal injection

There are not enough ophthalmologists

Density of Ophthalmologists

Prevalence of Diabetes

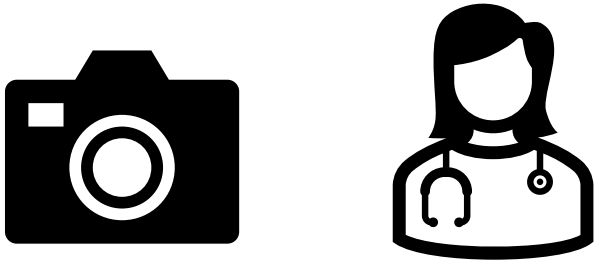


Feng PW, Ahluwalia A, Feng H, Adelman RA. National Trends in the United States Eye Care Workforce from 1995 to 2017. *Am J Ophthalmol*. 2020;218:128-135.
Vision Health Initiative | Economic Studies." U.S. Centers for Disease Control level distribution of diagnosed diabetes among US adults aged 20 or older, 2013. https://www.cdc.gov/diabetes/pdfs/library/diabetesreportcard2017-508.pdf. Accessed June 18, 2020.

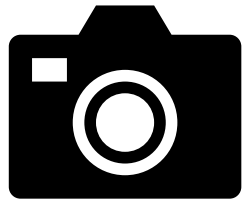
Methods for diabetic retinopathy screening

In-Office

Telemedicine



Autonomous AI

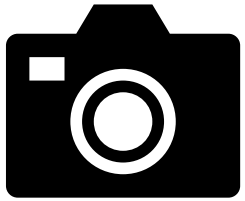


How is autonomous AI DR screening being used
& are we doing a better job with DR screening?

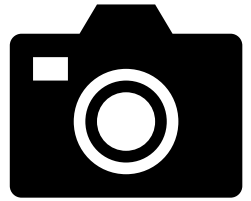
Purpose: characterize current landscape of diabetic retinopathy screening

In-Office

Telemedicine



Autonomous AI



Newly diagnosed patients with type 2 diabetes mellitus (T2DM)

- Choice of initial DR screening method
- Sequence of DR screening in the years after diagnosis
- Compare baseline patient characteristics
- Compare time to initial diabetic retinopathy screening

Where Are We in Network Study Execution?

https://www.ohdsi.org/wp-content/uploads/2023/10/martin-ben_ohdsi-network-study-framework_2023symposium-Benjamin-Martin.pdf

Purpose: characterize current landscape of diabetic retinopathy screening

In-Office

Telemedicine

Autonomous AI

Newly diagnosed patients with type 2 diabetes mellitus (T2DM)

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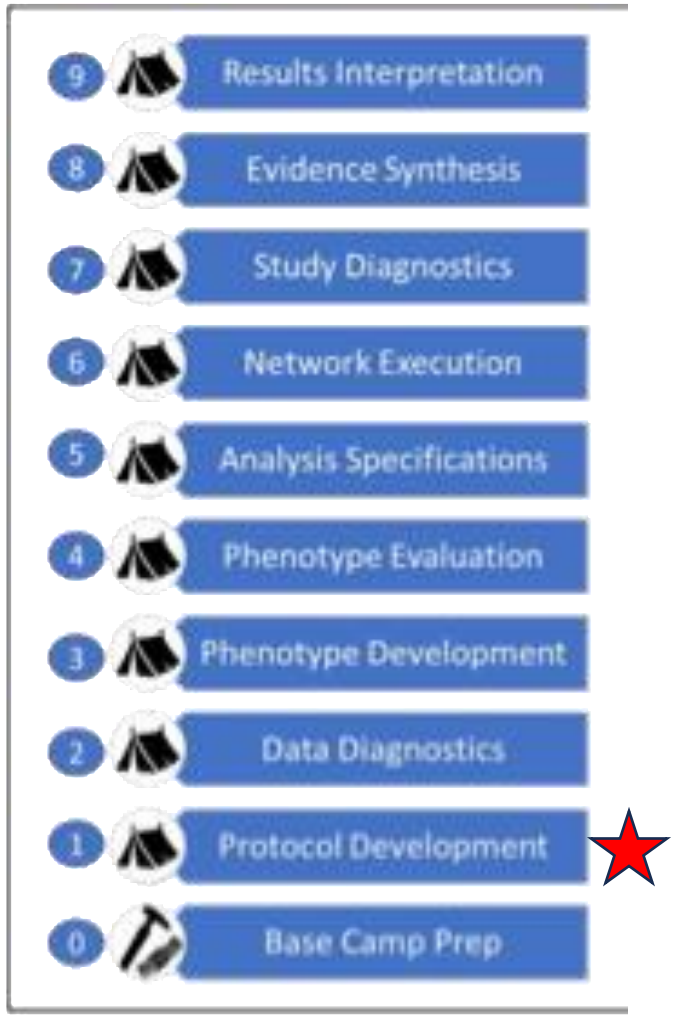

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Home

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Appendix
A. Indication Cohort
B. Outcome Cohorts

OHDSI

RESEARCH PROTOCOL

GDE2025 - Diabetic Retinopathy (DR) Screening Network Study

Version: 1.1.0

1 List of Abbreviations

GDE	Guideline Driven Evidence
OHDSI	Observational Health Data Sciences and Informatics
HADES	Health Analytics Data-to-Evidence Suite
T2D	Type 2 diabetes
DR	diabetic retinopathy
DME	diabetic macular edema
AI	artificial intelligence
CCI	Charlson Comorbidity Index
DCSI	Diabetes Complications Severity Index

Document by Hannah Last updated 3 days ago

Comments (–) Share Hide Toolbars

https://github.com/ohdsi-studies/Gde2025DiabeticRetinopathyScreening?tab=readme-ov-file

Clair Blacketer via email 4/4 10:02 PM
To: GDE2025 - Bladder cancer treatment - OHDSI, Asieh Golozar, GDE2025 - Obesity management - O...

Re: GDE Data Diagnostics Instructions

Dear GDE Teams,

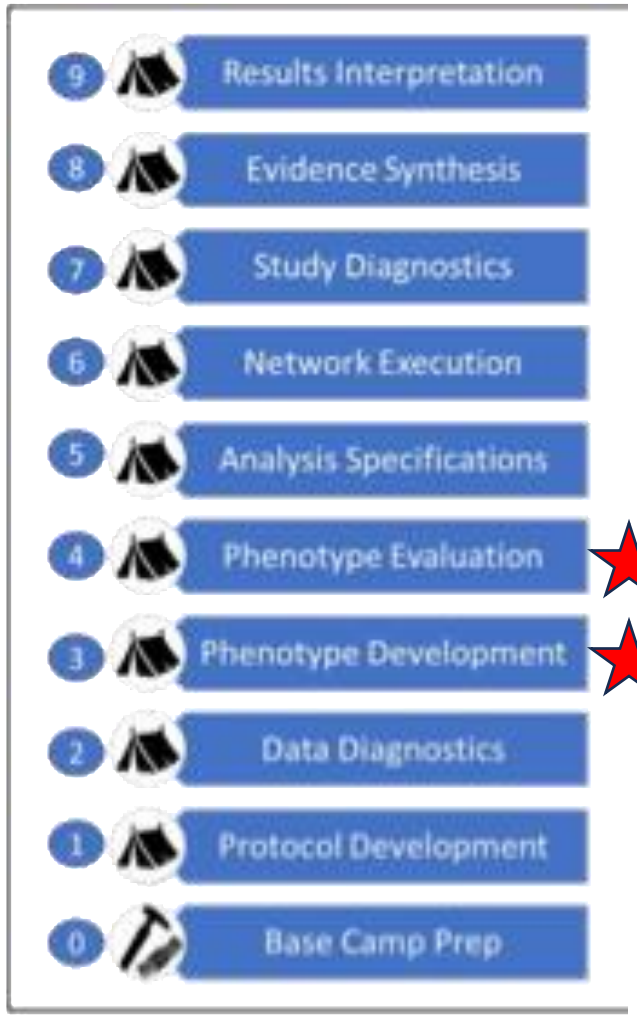
Good news! The studies for which I have the completed data diagnostics templates all have results available. In your study channel in the Data Diagnostics folder you will find a file called "Data Diagnostics Results". You will see two different tables in the excel file, one that shows the number of potential databases per analysis variant and one that shows how many of the analysis variants in your study each database in the network can potentially contribute to. The file also shows the *ohdsi.org* email address for each database. With this information you are now able to reach out to data partners and invite them to join your study.

If you would like to see the full details of the results, you can find them here:https://data.ohdsi.org/DataDiagnostics/

I also walked through how to review the shiny app on a recent community call, which you can see here: https://youtu.be/Rv1arONKd9o

Please let me know if you have any questions!
Clair

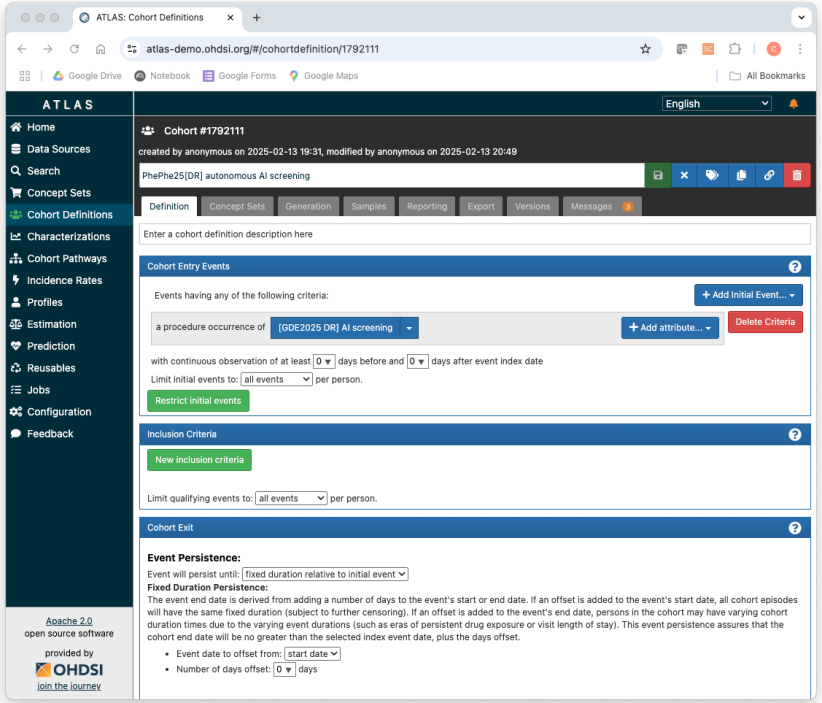
Identified data partners in the OHDSI Evidence Network

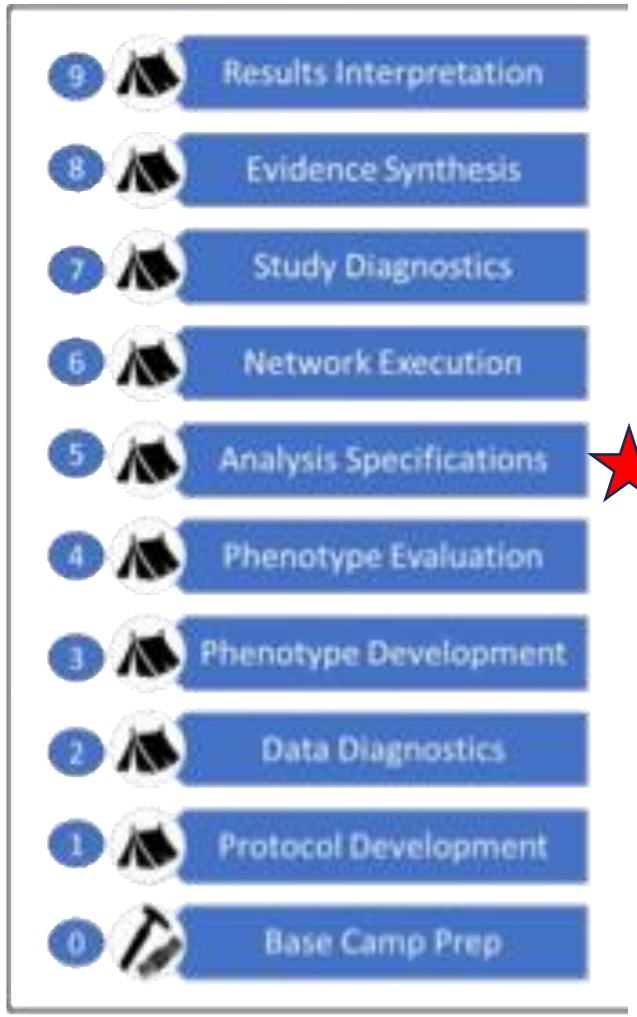


Worked with Azza Shoaibi to develop in Atlas & Phenotype Development Team to evaluate phenotypes

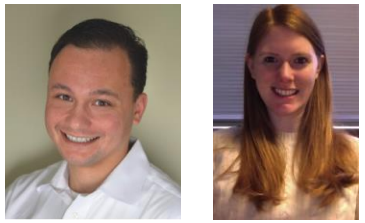
<u>Indication Cohorts</u>:
Newly diagnosed T2DM

<u>Outcome Cohorts</u>:
DR Screening: in-office
DR Screening: telemedicine
DR Screening: AI





Erik Westlund
Ben Martin
Haeun Lee



Anthony Sena
Jenna Reps

Strategus

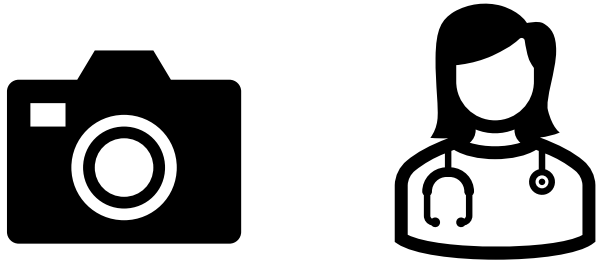
Treatment Patterns

Characterization
CohortIncidence

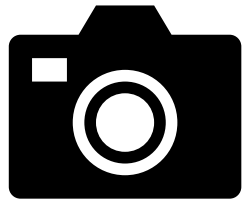
Back to Our Study Question…

In-Office

Telemedicine



Autonomous AI

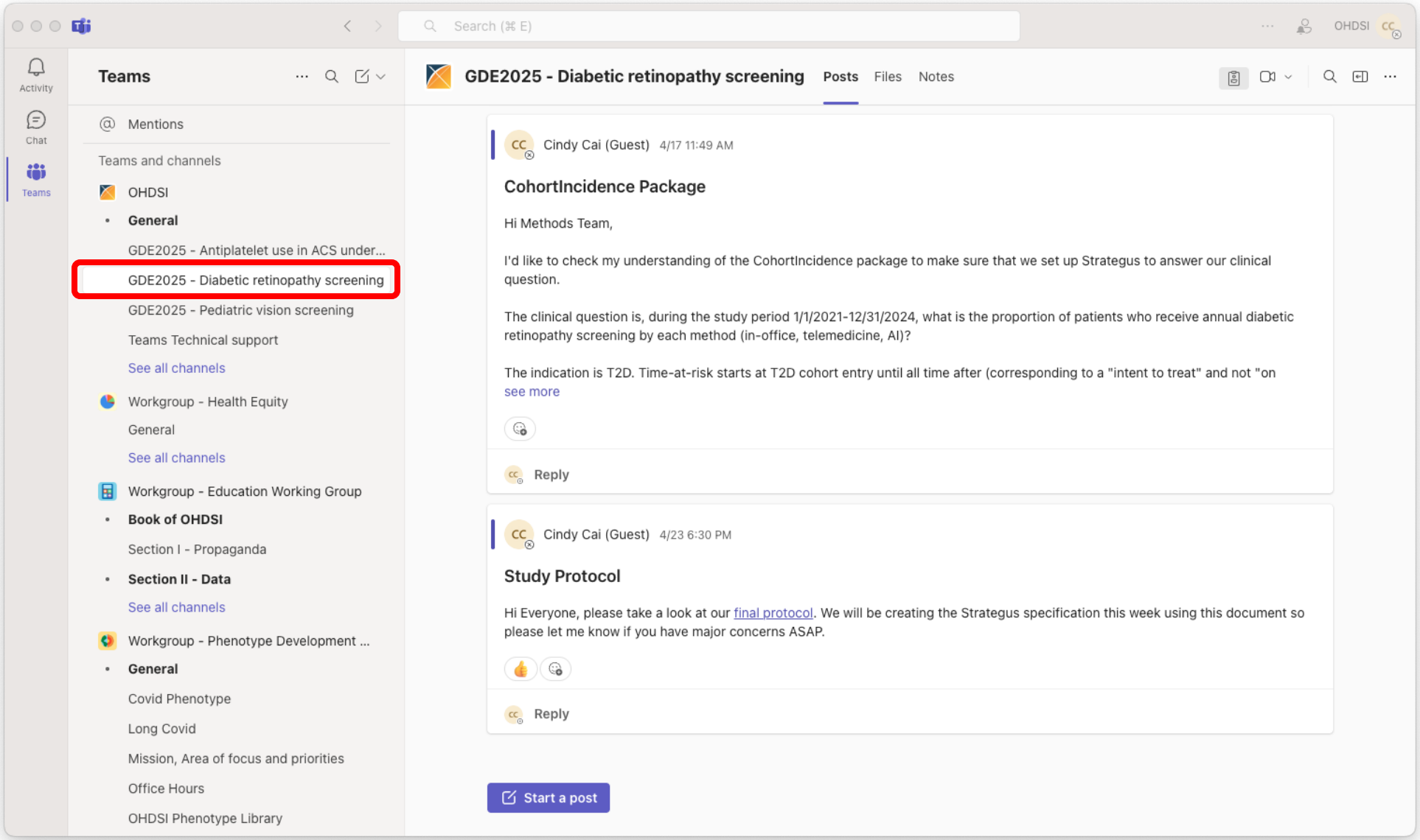


How is autonomous AI DR screening being used
& are we doing a better job with DR screening?

Help us with our Network Study…

- If you are a data partner:
  - Autonomous AI CPT 92229
  - Run study package
- If you have Study Package experience:
  - Help with TreatmentPatterns
  - Help with Strategus
- If you are a clinician:
  - https://results.ohdsi.org/app/29_Gde2025DiabeticRetinopathyScreening

Stay tuned: DR Screening Network Study Teams channel



Pediatric Vision Screening

- Good vision is critical for child development and learning
- General guidelines for screening by pediatrician since 2016
  - Annual screening using instruments ages 1 – 3 years
  - Annual screening using chart ages 3-5 years
  - Biannual screening using chart ages over 5
- Little evidence for screening under 3
- Hypothesis: Using instrument based screening increased pediatric refractive error diagnoses post 2016
- Develop phenotypes for screening & pediatric refractive error diagnoses
- Need help with developing study!

KI Research Institute

Osteoporosis Pharmacotherapy in the Older and Oldest Old: Bridging the Evidence Gap

Status: 20 May 2025

Chen Yanover

yanover@ohdsi.org

Background

- Highest risk of osteoporosis-related fractures in the frail and elderly
- Typically, poorly represented in or ineligible to RCTs; limited numbers in observational studies, rarely analyzed as subgroup

⇨Guidelines are vague, incomplete, missing

⇨Gaps include optimal treatment duration, discontinuation risks, long-term safety, and therapeutic sequencing

Study components

- Osteoporotic medication patterns
- Comparative effectiveness (new user cohort study design) within and between drug classes (antiresorptive, anabolic)
  - General population, stratify by age groups, sex
- Safety and efficacy for long term use (10+ years)

Status

- Phenotypes implemented + diagnosed
  - Osteoporosis, exposures, outcomes, covariates
- Potentially relevant DBs identified (Data Diagnostics)
- First draft of study protocol completed
  - GDE2025 osteoporosis elderly protocol.docx (in study Teams channel)
- Next, implement analysis specification in Strategus
  - TreatmentPatterns stats

Collaborators

- Sourasky Medical Center, Tel Aviv, Israel
  - Vanessa Rouach
- KI Research Institute
  - Naama Parush Shear Yashuv, Tal El-Hay, Reuben (Ruby) Shamir, Maytal Bivas-Benita
- University of South Australia
  - Jack Janetzki

Join us!

- Teams Channel: GDE2025 - Osteoporosis management

GDE2025: Community-acquired pneumonia treatment pathways

Anna Ostropolets

Study objective

To characterize antibiotic treatment pathways of patients with CAP across the globe

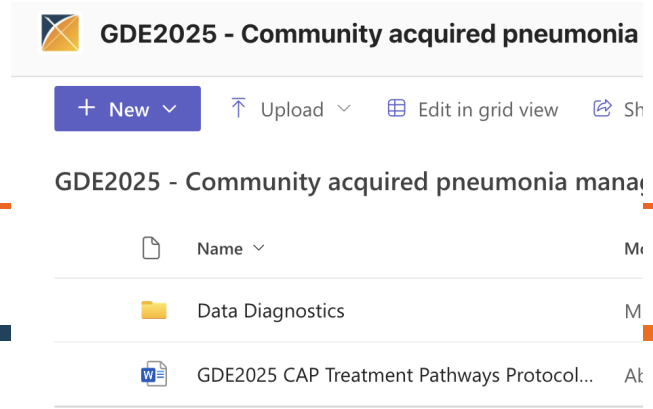
Study steps

Create cohort definitions for target population and treatments and assess them

Develop study protocol and specification

Execute locally & across the network

Compile the results and write up



https://results.ohdsi.org/app/26_PhenotypePhebruary2025

Study design

Patients with incident pneumonia (outpatient visit)
365 days of prior observation
Exclude tuberculosis a year prior
Exclude non-CAP on day 0

Subgroup: patients with incident CAP subsequently hospitalized

Drugs:
corticosteroids, cephalosporins stratified by generation, penicillins, macrolides, tetracyclines, trimetoprim, carbapenems, lincosamides, aminoglycosides, fluroquinolones
Stratified by route of administration

Parameters:
Follow-up starts right after dx
Era collapse between exposures = 30 days
Window for combinations = 1 day

Place for community to engage