PCORnet CDC COVID-19 Electronic Healthcare Data Initiative

Bi-Monthly Webinar

August 23, 2021

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Welcome
PCORnet CDC COVID 19 Project, August Webinar

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Agenda

- Year 2 scope
- Query timeline through 2021
- Details on specific queries
  - PASC distributed regression
  - Vaccine, cumulative, delta descriptive
- Update on manuscripts
Year 2 updates, scope

- Study period 8/1/2021 to 7/31/2022

- Scope
  - Queries 1-2 per month; refreshes at least monthly
  - Linkage of procedure codes and immunization data, loading of immunization data in PCORnet CDM
  - Submission of patient-level dataset for more efficient, predefined regression analyses

- Coordinating Center will continue activities and revise tools to account for varied data for cohort formation (e.g., immunization codes)

- Likely 2-3 new sites
Query timeline

- PASC condition distributed regression – report being generated
- Vaccine adverse events– due last Wednesday, report this week
- Cumulative with updates – week of Aug 23
- PASC symptom distribute regression– week of Sept 6
- Delta-focused assessment – week of Sept 20
- Chronic disease at baseline and COVID outcomes – week of Oct 4
Distributed regression queries on Post-acute sequelae of COVID (PASC, PCC)

- Predictors of developing certain chronic conditions, including DM2, neurologic conditions post-SARS-CoV-2 vs. control group (those testing negative); proportional hazards models
- Predictors of symptoms, defined by codes, post-SARS-CoV-2 vs. control group; logistic regression
- Models executed at sites with summary output returned, combined through meta-analyses
Updated Vaccine query

- Added information post-2\textsuperscript{nd} shot from mRNA vaccines
- Examined 7- and 30-day risk windows vs. any or 2\textsuperscript{nd} shots
- Removed SARS-CoV-2 positive cases, pre-vaccine, from cohorts and measured true incidence of adverse events
- Focused on myocarditis and pericarditis but also examining other AEs
Conditions Assessed: ICD-10-CM Codes

- Myocarditis
- Pericarditis
- DVT
- PE
- Other VTE
- Anaphylaxis
- Syncope
- Heparin induced thrombocytopenia
- Multi-inflammatory Syndrome
- Arterial embolism
- Stroke (hem & ischemic), TIA
- MI
Updated cumulative query and delta-focused queries

- **Cumulative**
  - Adding monoclonal antibody cohort
  - Adding breakthrough and 2<sup>nd</sup> infection cohorts
  - Examining incidence of Guillain Barre

- **Delta**
  - Examining characteristics pre- (March 20 – May 21) and post-delta (July –)
  - Adding pregnant and heart failure cohorts
Possible Queries October through December

- Descriptive and distributed regression on chronic disease control after COVID
- Distributed regression on factors associated with admission/readmission
- Additional vaccine queries after data in immunization tables accessible
- Additional cumulative query
- Patient-level data acquisition query
Some manuscripts have collaborative author lists with representation per site and others have only writing groups.

Manuscripts with collaborative authors:
- Pediatric trends manuscript – writing group reviewing; sent to collab authors last week
- Adult trends manuscript – collab authors already reviewed; manuscript nearly completely updated after CDC input
- Both will be updated with data from upcoming query

Other manuscripts on Long COVID, vaccine adverse events, chronic disease and COVID
Other Priorities for Exploration

- Possible linkage with NCHS for death data
- Continue to explore possibilities for linking of vaccination data
- Coordinate efforts with other initiatives when possible
  - NC3
  - NIH PASC projects
Summary

- Year 2 contracts should be in your hands, hoping to add 2-3 sites
- Continuing pace of Year 1, with queries twice per month but less frequent data refreshes
- Hope sites can refresh this week for coming query
- Queries over next several months will be mix of regression, descriptive, patient-level data acquisition and possibly some urgent priorities