

Data Science Committee Meeting

January 2023

Overview of T1DX-QI EMR Database

T1DX-QI
EMR
Database

Metrics on
QI Portal
(Mapped sites)

Data Mapping

T1DX-QI EMR
Data specification



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Population Health Research

- Data files:**
- Patient
 - Observations
 - Encounter
 - Provider
 - Conditions
 - Medications
 - Diabetes related



Agenda

- Review of modifications made to Data specification Version 3.0
- Update on Mapped sites
- Discuss new data element addition
- EHR paper discussion – Led by Dr. Joyce Lee

Update: Data Spec Upgrade V 3.0

- Education level
- Race/Ethnicity (mixed race option)
- Insulin pen use
- C-peptide and autoantibodies testing
- SDOH: Transportation and Housing
- Family History of Diabetes

Update: T1DX-EMR Mapped Sites

- 23 sites fully mapped
- 5 in validation phase (4 in internal and 1 in external validation)
- Data Completeness Scorecards
 - Scorecards completed including data through Q4 2022

Sample Scorecard

- On average of all mapped sites, we have about 90% of a1c data available
- T1d_dx_dt, ~80% of sites are sharing this information. We see a range from 18%- 100% availability
- Of mapped sites, about 50% are sharing TIR with us, and of those sites we data availability ranging from 7% to 92%
- For CGM use, about 60% of mapped sites are sharing cgm_binary with us, and of those sites we have about 76% available data

T1Dx Phase 1 Measures	Codes from T1DX data spec	Data availability	Meets Mapping Expectations
Demographic data	birth_date	100%	
	t1d_dx_dt	100%	
	Race	100%	
	Ethnicity	100%	
	primary_insurance_type	100%	
A1c data	39156-5 (BMI)	99%	
	4548-4, 17856-6	99%	
CGM Use data	cgm_binary=1	91%	
	cgm_st_dt	92%	
	cgm_company	75%	
	cgm_model	83%	
BG check data	bgm_test_freq	8%	
Pump Use data	ins_regimen=1	71%	
	pump_st_dt	94%	
	pump_company	16%	
	pump_model	53%	
HCLS	ins_pump_delivery==4	40%	
MDI Use data	ins_regimen !=1	29%	
Depression screening data	55758-7, 44261-6	Not available	
T1Dx Phase 2 Measures			
Time in Range	time_in_range	52%	
Time in Hypoglycemia	cgm_below_70		
Time in Severe Hypoglycemia	cgm_below_54	47%	
DKA events		47%	
	dka_events_inp	8%	
	dka_events_amb	Not available	
	dka_events_inp_pro	Not available	
Bolus 3X among Pump users	dka_events_amb_pro	Not available	
	bolus_ins_daily_inj	Not available	
SDOH	88124-3, 88122-7, 88123-5	Not available	
Change in medication file format	drug_name	Available	
	drug_name_generic	Not available	
	drug_sub_class	Not available	

Mapping Expectations

No Action Needed
Needs Confirmation
Site not collecting
Collecting but not providing

New Data Elements Requested

- Cannabis use

Core/Observation		
Cannabis use	LOINC code	No= 0 Yes=1

- New onset Diabetes Education

Diabetes/ Disease		
Diabetes Education		No= 0 Yes=1