ACT i2b2 ETL Quick Reference
For Ontology Version 2.0.1 ACT_SHRINE_ONTOLOGY_2018-1214

Use i2b2 best practices referenced in https://www.i2b2.org/software/files/PDF/current/CRC_Design.pdf

Clinical Data

The ACT Ontology does not use any modifiers. The modifier_cd field in the fact table cannot be null for any data type. It must be set to '@', the default value, or contain a modifier that you specify locally.

Note: Lab fact rows with values in the observation_fact table must have modifier_cd = '@'. Queries by value will not pick up lab results that do not have the @ modifier_cd.

Domain	Terminology	Code Prefix	Modifiers		Preferred Source and Notes
Diagnosis					Billing diagnosis are preferred. If billing diagnosis not available use Encounter Diagnosis, or Problem List
	ICD-9	ICD9CM:			This prefix replaces the generic ICD9: from prior versions
	ICD-10	ICD10CM:			
Procedures					Billed procedures are preferred, if not available orders are acceptable
	ICD-9	ICD9PROC:			This prefix replaces the generic ICD9: from prior versions
	ICD-10	ICD10PCS:			
	CPT4	CPT4:			ACT sites should only attach to their local facts if they a documented AMA license.
	HCPCS	HCPCS:			
Medications					
	RxNorm	RXNORM:			Modifiers are deleted. Include Dispensed, Ordered and Administered medications.
	NDFRT	NUI:			
	NDC	NDC:			
Labs					Lab Results are preferred, if not available use Lab Orders if possible. Please use lab results with values and/or Lab Flags (i.e.H, L) see i2b2 documentation for standard observation flags
	LOINC	LOINC:			

Demographic data

The Demographic ontology includes age, race, sex, Hispanic and vital status. **These facts should all be stored in the OBSERVATION_FACT table, as queries that explicitly use the demographics ontology terms will select patients using the values in the observation fact table**. Race, sex and vital status are **also** represented in the PATIENT_DIMENSION table. All codes are local to ACT (i.e. DEM|RACE:W) and are used in both tables.

Domain	Code	Description	Preferred Source and Notes
Race	DEM|RACE:NA DEM|RACE:AS DEM|RACE:B DEM|RACE:M DEM|RACE:H DEM|RACE:NI DEM|RACE:W	Amer. Indian or Alaska Native Asian Black or African American Multiple race Native Hawaiian or Other Pacific Islander No Information White	
Sex	DEM|SEX:F DEM|SEX:M DEM|SEX:NI DEM|SEX:O	Female Male No Information Other	
Hispanic	DEM|HISP:Y DEM|HISP:N DEM|HISP:NI	Yes No No Information	
Vital Status	DEM|VITAL STATUS:D	indicates the patient is confirmed dead	Only record facts for patients known to be deceased

Visit data

Domain	Code	Description	Preferred Source and Notes
Visit Type	EI E I N NA X O	Emergency Department Admit To Inpatient Emergency Department Visit Inpatient Hospital Stay No Information Non-Acute Hospital Stay Other Ambulatory Visit Ambulatory Visit	This is the value set for the *inout_cd* in the *visit_dimension* table. *If you cannot map from your source system please set value to 'N' .

ETL Notes for Existing ACT Sites

In order to support the new ontology sites will need to update their observation facts to:

- Support new prefixes for ICD9 diagnosis and procedure data. The single ICD9: prefix has been replaced with ICD9CM: and ICD9PROC:
- All modifiers have been removed from the ACT ontology
- Add CPT data (be sure to have appropriate licensing)
- Add HCPCS data
- Add ICD10 procedure data
- NDCs are represented in the ontology
- All clinical LOINC codes are represented in the ontology
- Optional update facts to include text in tval_char to include code and value to allow for text searching available in top level