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Practice Fusion De-Identified Data Set

Data Dictionary and Data Model Diagram

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Practice Fusion EHR

Practice Fusion is America's fastest growing Electronic Health Record (EHR) community, with more than 170,000 medical professional users treating 40 million patients in all 50 states. Practice Fusion's EHR-driven research dataset is used to detect disease outbreaks, identify dangerous drug interactions and compare the effectiveness of competing treatments.

De-Identified Data Set

Practice Fusion periodically releases de-identified, HIPAA-compliant medical records to spur innovation into new uses of clinical data to improve public health and patient care. This dataset is one of the largest and richest sources of medical record data ever released and includes information on diagnoses, lab results, medications, allergies, immunizations, vital signs, and health behavior.

Data Dictionary and Data Model Diagram

This document provides:

- Definitions for tables and columns in the de-identified data set
- A data model diagram, showing the entities, attributes and relationships

The de-identified data set is typically released as a collection of CSV files. Both the data dictionary and the data model diagram include column data types of the source database.

The dictionary lists data entities in alphabetical order. For columns containing reference data not included in a separate look-up table, the column description may specify the allowed values.

Allergy

This table contains a list of allergies recorded for a patient.

Key	Column Name	Data Type	Description
PK	AllergyGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for the patient allergy record.
FK	PatientGuid	UNIQUEIDENTIFIER NOT NULL	Identifier for the patient.
	AllergyType	NVARCHAR(100) NOT NULL	Substance to which the patient has shown allergy. Values: Animal Dander (Contact); Baker's Yeast; Dairy; Dust (Inhaled); Dust Mites (Contact); Egg; Insect Stings (Contact); Latex (Contact); Medication; Melons, Bananas, Cucumbers (Ragweed Pollen); Mold (Inhaled); Nickel (Contact); Other nuts; Peanut; Pollen (Inhaled); Seafood; Shellfish; Soy; Wheat.
	StartYear	SMALLINT NOT NULL	Year of onset for the allergy.
	ReactionName	NVARCHAR(100) NULL	Allergic reaction reported by the patient. Values: Bloating/gas; Bradycardia; Chest Pain; Conjunctivitis; Cough; Diarrhea; Difficulty speaking or swallowing; Dizziness/Lightheadedness; Facial swelling; Hives; Irregular Heartbeat; Itchiness; Loss of consciousness; Nausea; Pain/cramping; Patchy swelling-skin; Rash - generalized; Rash - localized; Respiratory Distress; Runny nose; Shortness of breath; Tachycardia; Tongue swelling; Vomiting; Wheezing.
	SeverityName	NVARCHAR(100) NULL	Severity of the patient allergy. Values: Very Mild; Mild; Modest; Severe.
	MedicationNdcCode	NVARCHAR(50) NULL	National Drug Code (NDC) identifier for medication taken by the patient for the allergy.
	MedicationName	NVARCHAR(100) NULL	Name of the allergy medication.
	UserGuid	UNIQUEIDENTIFIER NOT NULL	Identifier for the provider who recorded the allergy.

Condition

Reference table containing valid patient conditions.

Key	Column Name	Data Type	Description
PK	ConditionGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for a condition.
	Code	NVARCHAR(50) NOT NULL	Code for the condition.
	Name	NVARCHAR(100) NOT NULL	Description of the condition.

Diagnosis

This table contains a list of diagnoses for a patient.

Key	Column Name	Data Type	Description
PK	DiagnosisGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for a patient diagnosis.
FK	PatientGuid	UNIQUEIDENTIFIER NOT NULL	Identifier for the patient.
	ICD9Code	NVARCHAR(50) NOT NULL	ICD9 code for the diagnosis. (See http://en.wikipedia.org/wiki/List_of_ICD-9_codes)
	DiagnosisDescription	NVARCHAR(256) NOT NULL	Description of ICD9 code.
	StartYear	SMALLINT NULL	Year for the onset of the diagnosis.
	StopYear	SMALLINT NULL	Year for the end of the diagnosis.
	Acute	BIT NULL	Is the diagnosis an acute condition? If not acute, then the condition is considered chronic. Values: 1 = Acute; 0 = Chronic.
	UserGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for the provider who recorded the diagnosis.

Immunization

This table contains a list of immunizations for a patient.

Key	Column Name	Data Type	Description
PK	ImmunizationGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for the patient immunization record.
FK	PatientGuid	UNIQUEIDENTIFIER NOT NULL	Identifier for the patient.
	VaccineName	NVARCHAR(256) NULL	Name of the vaccine administered to the patient.
	AdministeredYear	SMALLINT NULL	Year the vaccine was administered.
	CvxCode	NVARCHAR(100) NULL	CVX code for the administered vaccine (CDC).
	UserGuid	UNIQUEIDENTIFIER NOT NULL	Identifier for the provider who recorded the immunization.

LabObservation

This table contains lab test observations for a lab panel.

Key	Column Name	Data Type	Description
PK	LabObservationGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for the lab test observation.
FK	LabPanelGuid	UNIQUEIDENTIFIER NULL	Identifier for the lab test panel.
	HL7Identifier	NVARCHAR(255) NOT NULL	Code for the lab test observation, as provided by the lab facility.
	HL7Text	NVARCHAR(255) NOT NULL	Name of the lab test observation, as provided by the lab facility.
	HL7CodingSystem	NVARCHAR(255) NOT NULL	Observation coding system used for the lab test observation code in column HL7Identifier. Values: LN = LOINC.
	IsLoinc	BIT NOT NULL	*[Not used]*
	ObservationValue	NVARCHAR(255) NOT NULL	Value for the lab test observation.
	IsValidValue	BIT NOT NULL	*[Not used]*
	Units	NVARCHAR(255) NULL	Units of measure for the lab test observation value.
	ReferenceRange	NVARCHAR(255) NULL	Range for normal lab test observation value.
	AbnormalFlags	NVARCHAR(255) NULL	Flags for abnormal lab test observation value. Values: Abnormal Result; Abnormal; Above Normal High; Alert High; Alert Low; Below Normal Low; Panic High; Panic Low; UKNOWN.
	ResultStatus	NVARCHAR(255) NULL	Status of the lab test observation. Values: Corrected; Final; Incomplete; Not Performed; Preliminary; UKNOWN; UNKNOWN.
	ObservationYear	SMALLINT NULL	Year the lab test observation was performed.
	ObservationMethod	NVARCHAR(255) NULL	*[Not used]*
	UserGuid	UNIQUEIDENTIFIER NULL	Identifier for the provider for the lab test result.
	IsAbnormalValue	BIT NULL	Indicator whether the lab test observation is abnormal.
	Sequence	INT NULL	Sequence of the lab test observation for the lab test panel.

LabPanel

This table contains lab test panels reported in a patient lab test result.

Key	Column Name	Data Type	Description
PK	LabPanelGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for the lab test panel performed.
FK	LabResultGuid	UNIQUEIDENTIFIER NOT NULL	Identifier for the lab test result.
	PanelName	NVARCHAR(255) NULL	Name of the lab test panel.
	ObservationYear	SMALLINT NULL	Year the lab test panel was performed.
	DangerCode	NVARCHAR(255) NULL	*[Not used]*
	Status	NVARCHAR(255) NULL	Status of the lab test panel. Values: Cancelled; Corrected; Final; Incomplete; Not Performed; Preliminary; UKNOWN; UNKNOWN.
	Sequence	INT NULL	Sequence of the lab test panel within the lab test result.

LabResult

This table contains patient lab test results received from a lab facility.

Key	Column Name	Data Type	Description
PK	LabResultGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for the lab test result.
	UserGuid	UNIQUEIDENTIFIER NULL	Identifier for the provider who ordered the lab test.
FK	PatientGuid	UNIQUEIDENTIFIER NULL	Identifier for the patient.
FK	TranscriptGuid	UNIQUEIDENTIFIER NULL	Patient visit transcript for the lab test order.
	PracticeGuid	UNIQUEIDENTIFIER NULL	Identifier for the provider's medical practice.
	FacilityGuid	UNIQUEIDENTIFIER NULL	Identifier for the facility performing the lab test.
	ReportYear	SMALLINT NULL	Year the lab result was created.
FK	AncestorLabResultGuid	UNIQUEIDENTIFIER NULL	Prior lab test result to which this result is related.

Medication

This table contains the medication history for a patient.

Key	Column Name	Data Type	Description
PK	MedicationGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for a patient medication.
FK	PatientGuid	UNIQUEIDENTIFIER NOT NULL	Identifier for the patient taking the medication.
	NdcCode	NVARCHAR(50) NULL	NDC code for the medication. (See http://www.fda.gov/drugs/informationondrugs/ucm142438.htm)
	MedicationName	NVARCHAR(256) NULL	Name of the medication.
	MedicationStrength	NVARCHAR(50) NULL	Strength of the medication.
	Schedule	NVARCHAR(50) NULL	Controlled substance schedule. (See http://www.deadiversion.usdoj.gov/schedules/index.html)
FK	DiagnosisGuid	UNIQUEIDENTIFIER NULL	Identifier for the diagnosis that the provider linked to the medication.
	UserGuid	UNIQUEIDENTIFIER NOT NULL	Identifier of the provider who added the medication.

Patient

This table contains a header record for each patient.

Key	Column Name	Data Type	Description
PK	PatientGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for a patient record.
	Gender	NVARCHAR(1) NOT NULL	Patient gender. Values: M = Male; F = Female.
	YearOfBirth	SMALLINT NOT NULL	Patient's year of birth.
	State	NVARCHAR(2) NOT NULL	State abbreviation for the state in which the patient lives.
	PracticeGuid	UNIQUEIDENTIFIER NOT NULL	Identifier for the practice whose providers are seeing the patient.

PatientCondition

This table lists conditions for a patient.

Key	Column Name	Data Type	Description
PK	PatientConditionGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for a patient condition record.
FK	PatientGuid	UNIQUEIDENTIFIER NULL	Identifier for the patient with the condition.
FK	ConditionGuid	UNIQUEIDENTIFIER NULL	Identifier of the condition.
	CreatedYear	SMALLINT NOT NULL	Year the provider added the condition to the electronic health record.

PatientSmokingStatus

This table contains changes in smoking status for each patient, by year.

Key	Column Name	Data Type	Description
PK	PatientSmokingStatusGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for the patient smoking status record.
FK	PatientGuid	UNIQUEIDENTIFIER NULL	Identifier for the patient.
FK	SmokingStatusGuid	UNIQUEIDENTIFIER NULL	Identifier for the smoking status.
	EffectiveYear	SMALLINT NULL	Starting year for the smoking status change.

Prescription

This table contains prescription records for a patient. A prescription is a written direction from the provider for administering medication.

Key	Column Name	Data Type	Description
PK	PrescriptionGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for a prescription.
FK	PatientGuid	UNIQUEIDENTIFIER NOT NULL	Identifier for the patient.
FK	MedicationGuid	UNIQUEIDENTIFIER NULL	Identifier for the medication that the doctor prescribed.
	PrescriptionYear	SMALLINT NULL	Year in which the prescription was made.
	Quantity	NVARCHAR(50) NOT NULL	Number of units of the medication prescribed.
	NumberOfRefills	NVARCHAR(50) NULL	Number of refills included in the prescription.
	RefillAsNeeded	BIT NULL	Can the patient refills as needed? Values: 1 = Yes, 0 = No.
	GenericAllowed	BIT NULL	Can a generic drug be substituted? Values: 1 = Yes, 0 = No.
	UserGuid	UNIQUEIDENTIFIER NOT NULL	Identifier of the provider who created the prescription.

SmokingStatus

Reference table containing valid values for patient smoking status.

Key	Column Name	Data Type	Description
PK	SmokingStatusGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for the smoking status record.
	Description	NVARCHAR(255) NULL	Description of the smoking status.
	NISTcode	INT NULL	Corresponding NIST code value for smoking status, as specified in HHS HIT 45 CFR §170.302(g).

Transcript

This table contains visit transcript records for a patient. Each patient visit is documented by a visit transcript record.

Key	Column Name	Data Type	Description
PK	TranscriptGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for a visit transcript.
FK	PatientGuid	UNIQUEIDENTIFIER NOT NULL	Identifier for the patient.
	VisitYear	SMALLINT NOT NULL	Year of the visit for which the transcript was created.
	Height	FLOAT NULL	Patient height (inches).
	Weight	FLOAT NULL	Patient weight (lbs).
	BMI	FLOAT NULL	Body mass index.
	SystolicBP	SMALLINT NULL	Systolic blood pressure.
	DiastolicBP	SMALLINT NULL	Diastolic blood pressure.
	RespiratoryRate	SMALLINT NULL	Respiratory rate (breaths per minute).
	HeartRate	SMALLINT NULL	Heart rate (beats per minute).
	Temperature	FLOAT NULL	Temperature as entered by the provider (Expected as degrees Fahrenheit; a very small subset in Centigrade).
	PhysicianSpecialty	NVARCHAR(256) NOT NULL	Specialty of the provider seeing the patient.
	UserGuid	UNIQUEIDENTIFIER NOT NULL	Identifier of the provider recording the visit transcript.

TranscriptAllergy

This table contains a list of allergies recorded per visit transcript.

Key	Column Name	Data Type	Description
PK	TranscriptAllergyGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for the visit transcript allergy record.
FK	TranscriptGuid	UNIQUEIDENTIFIER NOT NULL	Identifier for the visit transcript.
FK	AllergyGuid	UNIQUEIDENTIFIER NOT NULL	Identifier for the allergy assigned to the visit transcript.
	DisplayOrder	INT NOT NULL	Sequence that the allergy appears in the visit transcript.

TranscriptDiagnosis

This table contains a list of diagnoses per visit transcript.

Key	Column Name	Data Type	Description
PK	TranscriptDiagnosisGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for a visit transcript diagnosis record.
FK	TranscriptGuid	UNIQUEIDENTIFIER NULL	Identifier for the visit transcript.
FK	DiagnosisGuid	UNIQUEIDENTIFIER NOT NULL	Identifier for the diagnosis assigned to the visit transcript.
	OrderBy	INT NOT NULL	Sequence that the diagnosis appears in the visit transcript. Sometimes indicates the severity or importance of the diagnosis in relation to other diagnoses in the same visit transcript.

TranscriptMedication

This table contains a list of medications per visit transcript.

Key	Column Name	Data Type	Description
PK	TranscriptMedicationGuid	UNIQUEIDENTIFIER NOT NULL	Unique identifier for the visit transcript medication record.
FK	TranscriptGuid	UNIQUEIDENTIFIER NULL	Identifier for the visit transcript.
FK	MedicationGuid	UNIQUEIDENTIFIER NOT NULL	Identifier for the medication assigned to the visit transcript.
	OrderBy	INT NOT NULL	Sequence that the medication appears in the visit transcript. Sometimes indicates the severity or importance of the medication in relation to other medications in the same visit transcript.

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