VistA Allergies 1.0

**Release 29-Jan-2014**

|  |
| --- |
| **Warning**  This domain contains Allergy and Adverse Drug Reaction information **only** from the VA VistA GMR Allergy package. The VHA Enterprise uses the VistA GMR Allergy package in conjunction with allergies provided from the Department of Defense through the Health Data Repository. Users of this data should be cautioned that this data gives an incomplete but substantial representation of VA Patient Allergy and HDR information. |

# Personnel and Dates

## Lead Architect

Richard Pham

## Lead Programmer

Mike Baker

## Data Steward

Angela Newman, Kathy Montgomery

## Business Requirements Team

FNS SHG – Krista Jones

PBM SHG – Luanne Barron, Donald Lees, Robert Silverman

PCS – Eva Sowinski

OIA DQA – Noreen Arnold, Trinity Hall

## Technical Requirements Team

Luanne Barron, Donald Lees, Robert Silverman

## Governance Board Prioritization Date

Prioritized Out of Committee

# Release Description

The Allergies domain describes chemicals or environmental stimulants that the patient has a hypersensitive reaction against. This ordinarily refers to medications but may also refer to foods, chemicals, and certain noxious stimuli (bee-stings). This data has two major facts – a reactant (Allergy.Allergy) that stimulates a reaction and the reaction itself (Allergy.AllergicReaction), and its supporting dimensions and detailed facts.

# Domain Permissions

# This domain includes tables from two schemata: Allergy and Dim. This domain requires the CDW Full read permissions at the CDW and RDW levels. This domain is released under the standard LSV access for the VDWs.

# Dimension New Views

## Dim.Reactant

The reactant that causes the allergy. This has both local and national entries. As of present, all entries that enter this table are approved through the National Term Rapid Turnaround (NTRT), but historically contained freeform allergies.

**Added Columns**

|  |  |
| --- | --- |
| Column | Datatype |
| ReactantSID | Int |
| ReactantIEN | Varchar(50) |
| Sta3n | Smallint |
| Reactant | Varchar(50) |
| ReactantType | Varchar(50) |
| NationalAllergyFlag | Char(1) |
| MasterEntryForVUIDFlag | Char(1) |
| VUID | Varchar(50) |

## Dim.ReactantSynonym

The table displays the synonyms for Reactants.

|  |  |
| --- | --- |
| Column | Datatype |
| ReactantSynonymSID | Int |
| ReactantSID | Int |
| ReactantIEN | Varchar(50) |
| ReactantSynonymIEN | Varchar(50) |
| Sta3n | Smallint |
| ReactantSynonym | Varchar(50) |

## Dim.ReactantDrugClass

The table provides the Drug Class for the reactant.

|  |  |
| --- | --- |
| Column | Datatype |
| ReactantDrugClassSID | Int |
| ReactantSID | Int |
| ReactantIEN | Varchar(50) |
| ReactantDrugClassIEN | Varchar(50) |
| Sta3n | smallint |
| DrugClassSID | Int |

## Dim.ReactantDrugIngredient

This table displays the Drug Ingredient for the reactant.

|  |  |
| --- | --- |
| Column | Datatype |
| ReactantDrugIngredientSID | int |
| ReactantSID | int |
| ReactantIEN | Varchar(50) |
| ReactantDrugIngredientIEN | Varchar(50) |
| Sta3n | Smallint |
| DrugIngredientSID | Int |

## Dim.AllergyReaction

This table contains the possible Allergic Reactions. There are both standardized and non-standardized terms in this table.

**Added Columns**

|  |  |
| --- | --- |
| Column | Datatype |
| AllergyReactionSID | Int |
| AllergyReactionIEN | Varchar(50) |
| Sta3n | Smallint |
| AllergyReaction | Varchar(50) |
| NationalFlag | Char(1) |
| MasterEntryForVUIDFlag | Char(1) |
| VUID | Varchar(50) |

## Dim.AllergyReactionEffectiveDate

This table contains information on the date the Allergic Reaction became active and the effective date or when the allergic reactant became inactive in the VistA system.

**Added Columns**

|  |  |
| --- | --- |
| Column | Datatype |
| AllergyReactionEffectiveDateIEN | Varchar(50) |
| AllergyReactionEffectiveDateSID | Int |
| AllergyReactionEffectiveDateTime | Datetime2 |
| AllergyReactionEffectiveDateTimeTransformSID | Bigint |
| AllergyReactionEffectiveStatusFlag | Char(1) |
| AllergyReactionEffectiveVistaErrorDate | Varchar(50) |
| AllergyReactionIEN | Varchar(50) |
| AllergyReactionSID | Int |
| Sta3n | smallint |

## Dim.AllergyReactionSynonym

The table displays the synonym(s) for Allergic Reactions.

|  |  |
| --- | --- |
| Column | Datatype |
| AllergyReactionSynonymSID | Int |
| ReactionSID | Int |
| ReactionIEN | Varchar(50) |
| AllergyReactionSynonymIEN | Varchar(50 |
| Sta3n | Smallint |
| AllergyReactionSynonym | Varchar(8000) |

# Fact Views

# New Views

The following is a list of the new views created for the Allergy schema. Please note the IENs are including only in the SPV views.

## Allergy.Allergy

The stimulant, allergy or adverse element which caused a hypersensitive reaction in a patient.

|  |  |
| --- | --- |
| Column | Datatype |
| AllergySID | bigint |
| AllergyIEN | Varchar(50) |
| Sta3n | Smallint |
| PatientSID | Int |
| AllergyType | Varchar(50) |
| AllergicReactant | Varchar(8000) |
| LocalDrugSID | Int |
| DrugNameWithoutDoseSID | Int |
| DrugClassSID | Int |
| ReactantSID | Int |
| DrugIngredientSID | Int |
| OriginationDateTime | datetime2 |
| OriginationVistaErrorDate | varchar(50) |
| OriginationDateTimeTransformSID | Bigint |
| OriginationDateSID | Int |
| OriginatingStaffSID | Int |
| ObservedHistorical | Varchar(50) |
| ReportableFlag | Char(1) |
| OriginatorSignOffFlag | Char(1) |
| Mechanism | Varchar(50) |
| VerifiedFlag | Char(1) |
| VerificationDateTime | datetime2 |
| VerificationVistaErrorDate | Varchar(50) |
| VerificationDateTimeTransformSID | Bigint |
| VerificationDateSID | Int |
| VerifyingStaffSID | Int |
| EnteredInErrorFlag | Char(1) |
| EnteredInErrorDateTime | datetime2 |
| EnteredInErrorVistaErrorDate | Varchar(50) |
| EnteredInErrorDateTimeTransformSID | Bigint |
| EnteredInErrorDateSID | Int |
| EnteringInErrorStaffIEN | varchar(50) |
| EnteringInErrorStaffSID | Int |

## Allergy.AllergicReaction

This table contains the patient’s reaction(s) due to the stimulant (Allergy).

|  |  |
| --- | --- |
| Column | Datatype |
| AllergicReactionSID | Bigint |
| AllergySID | Bigint |
| AllergyIEN | Varchar(50) |
| AllergicReactionIEN | varchar(50) |
| Sta3n | Smallint |
| PatientSID | Int |
| ReactionSID | Int |
| EnteredByStaffSID | Int |
| OriginationDateTime | datetime2 |
| OriginationVistaErrorDate | varchar(50) |
| OriginationDateTimeTransformSID | Bigint |
| EnteredDateTime | datetime2 |
| EnteredVistaErrorDate | varchar(50) |
| EnteredDateTimeTransformSID | Bigint |

## Allergy.AllergyComment

This table contains the comments due to the stimulant (Allergy). This table concatenates all comments into one comment per Comment Type.

|  |  |
| --- | --- |
| Column | Datatype |
| AllergyCommentSID | Bigint |
| AllergySID | Bigint |
| AllergyIEN | Varchar(50) |
| AllergyCommentIEN | Varchar(50) |
| Sta3n | Smallint |
| PatientIEN | Varchar(50) |
| PatientSID | Int |
| OriginationDateTime | datetime2 |
| OriginationVistaErrorDate | Varchar(50) |
| OriginationDateTimeTransformSID | Bigint |
| CommentEnteredDateTime | datetime2 |
| CommentEnteredVistaErrorDate | Varchar(50) |
| CommentEnteredDateTimeTransformSID | Bigint |
| EnteringStaffIEN | Varchar(50 |
| EnteringStaffSID | Int |
| AllergyCommentType | Char(1) |
| AllergyComment | Varchar(8000) |

## Allergy.AllergyDrugClass

This table contains the standard drug classes from the patient reaction. that are matched in Order Checks due to the reactant (Allergy).

|  |  |
| --- | --- |
| Column | Datatype |
| AllergyDrugClassSID | Bigint |
| AllergySID | Bigint |
| AllergyIEN | Varchar(50) |
| AllergyDrugClassIEN | Varchar(50) |
| Sta3n | Smallint |
| PatientSID | Int |
| OriginationDateTime | datetime2 |
| OriginationVistaErrorDate | Varchar(50) |
| OriginationDateTimeTransformSID | Bigint |
| DrugClassSID | Int |

## Allergy.AllergicReactionAssessment

This table contains whether or not the allergic or adverse reaction was assessed by a clinician.

|  |  |
| --- | --- |
| Column | Datatype |
| AllergicReactionAssessmentSID | Bigint |
| AllergicReactionAssessmentIEN | Varchar(50) |
| Sta3n | Smallint |
| PatientSID | Varchar(50) |
| AssessmentDateTime | Datetime2 |
| AssessmentVistaErrorDate | Varchar(50) |
| AssessmentDateTimeTransformSID | datetime2 |
| ReactionAssessmentFlag | Char(1) |
| AsessingStaffSID | Int |

# Altered Views

The following displays changes to an existing table.

## Dim.DrugClass

|  |  |  |
| --- | --- | --- |
| Column | Datatype | Change |
| ApplicationPackageUse | Varchar(255) | Add |
| InactivationVistaErrorDate | Varchar(50) | Add |
| InactivationDateTimeTransformSID | Bigint | Add |
| LabChemTestSID | Int | Add |

# Deprecated Views

No deprecated views.

# Business Keys

For each table, BISL creates a **S**urrogate **ID**entification (SID) based on some unique business key combination. The business key, also called an alternate key (ak), is specified below with each table. Sta3n (station) is included in every business key as the uppermost level of the hierarchy.

|  |  |  |
| --- | --- | --- |
| Schema | Table Name | Alternate Key Column |
| Allergy | AllergicReactionAssessment | AllergicReactionAssessmentIEN |
| Allergy | AllergyComments | AllergyIEN |
| Allergy | AllergyComments | AllergyCommentsIEN |
| Allergy | AllergyComments | AllergyCommentTypeIEN |
| Allergy | AllergyComments | AllergyIEN |
| Allergy | AllergicReaction | AllergicReactionIEN |
| Allergy | AllergicReaction | AllergyIEN |
| Allergy | AllergyDrugClass | AllergyIEN |
| Allergy | AllergyDrugClass | AllergyDrugClassIEN |
| Allergy | AllergyDrugIngredient | AllergyIEN |
| Allergy | AllergyDrugIngredient | AllergyDrugIngredientIEN |
| Allergy | Allergy | AllergyIEN |
| Dim | AllergyReactionSynonym | AllergyReactionSynonymIEN |
| Dim | AllergyReactionSynonym | ReactionIEN |
| Dim | DrugIngredient | DrugIngredientIEN |
| Dim | Reaction | ReactionIEN |
| Dim | Reactant | ReactantIEN |
| Dim | AllergyReactionEffectiveDate | AllergyReactionEffectiveDateIEN |
| Dim | AllergyReactionEffectiveDate | AllergyReactionIEN |
| Dim | ReactantDrugClass | ReactantIEN |
| Dim | ReactantDrugClass | ReactantDrugClassIEN |
| Dim | ReactantDrugIngredient | ReactantIEN |
| Dim | ReactantDrugIngredient | ReactantDrugIngredientIEN |

# Relevant Date Columns

# All tables aside from dimensions have two specialized dates: a cutoff date and a partition date. The cutoff date is the date which a fact record may or may not be included. For this domain, there will be no cutoff date, because all records could be relevant in the present day. The partition date is the date which is used to subdivide the table into manageable portions for queries. Searching using the partition date may be faster than without the date. This date is chosen to be the most searched upon date in the table. Ordinarily, the cutoff date and the partition date are the same. Here is a list of the fact tables and their partition dates.

**Please note, for the Allergy domain, there are NO cutoff dates. Every record will be retained.**

**Partition and Cutoff Date**

|  |  |  |
| --- | --- | --- |
| Table Name | Partition Date | Cutoff Date |
| Allergy.Allergy | OriginationDateTime | N/A |
| Allergy.AllergicReaction | OriginationDateTime | N/A |
| Allergy.AllergyComments | OriginationDateTime | N/A |
| Allergy.AllergyDrugClass | OriginationDateTime | N/A |
| Allergy.AllergyDrugIngredient | OriginationDateTime | N/A |
| Allergy.AllergicReactionAssessment | AssessmentDateTime | N/A |

# Data Flow Description and Diagram

Most tables have direct lineages from their VistA file counterparts. The following table is one where there is a 1-1 transformation from the file in VistA to the table in the CDW.

|  |  |  |  |
| --- | --- | --- | --- |
| Schema | Table | File Name | File Number |
| Allergy | Allergy | PATIENT ALLERGIES | 120.8 |
| Allergy | AllergicReaction | REACTIONS | 120.81 |
| Allergy | AllergyComment | COMMENTS | 120.826, 120.8262 |
| Allergy | AllergyDrugClass | DRUG CLASSES | 120.802 |
| Allergy | AllergicReactionAssessment | ADVERSE REACTION ASSESSMENT | 120.86 |
| Dim | DrugIngredient | DRUG INGREDIENTS | 50.416 |
| Dim | Reactant | GMR ALLERGIES | 120.82 |
| Dim | AllergyReaction | SIGN/SYMPTOMS | 120.83 |
| Dim | AllergyReactionSynonym | SYNONYM | 120.832 |
| Dim | AllergyReactionEffectiveDate | EFFECTIVE DATE/TIME | 120.8399 |
| Dim | ReactantSynoym | SYNONYM | 120.823 |
| Dim | ReactantDrugClass | DRUG CLASSES | 120.8205 |
| Dim. | ReactantDrugIngredient | DRUG INGREDIENTS | 120.824 |

# Links:

[CDW Metadata Page](https://vaww.cdw.va.gov/metadata/default.aspx)

Or more specifically the [Metadata Report](https://vaww.cdw.va.gov/metadata/_layouts/ReportServer/RSViewerPage.aspx?rv:RelativeReportUrl=/metadata/Reports/Metadata%20Report.rdl&Source=http://vaww.cdw.r02.med.va.gov/metadata/Reports/Forms/AllItems.aspx&DefaultItemOpen=1)

[CDW Query Best Practices](https://vaww.cdw.va.gov/metadata/_layouts/WordViewer.aspx?id=/metadata/Metadata%20Documents/CDW%20Query%20Best%20Practices.docx&Source=http://vaww.dwh.cdw.portal.va.gov/metadata/default.aspx&DefaultItemOpen=1)

[Q&A forum hosted by VIReC](http://vaww.virec.research.va.gov/Support/HSRData-L.htm)

# Sample Queries