Surgery 1.0; SurgeryPOST release

## Release Date

November 2016

## Personnel

Hans Nielsen, Richard Pham (CDW Architects)

# Release Overview

The Surgery domain centers around data extracted from the Surgery package and stored in VistA file 130, split vertically into four conceptual groupings. The conceptual groupings are:

* SurgeryPRE- contains data relevant to surgical case scheduling and preparation
* SurgeryINTRA – contains data captured during a surgical case progress
* SurgeryPOST – contains post-case data, provider notes, indications for operations, and information on surgically implanted prosthetics.
* SurgeryQIP (developing) – contains data captured as part of the VA’s Surgical Quality Improvement Program

Other files relating to Prosthetics which are included in the VistA Surgery package will be included in the CDW Prosthetics domain (660 series file numbers).

Several fields, considered to be universally required for queries, are included in all split views.

These include an identifier for the surgery case, a patient identifier, date & time of the surgery, and a location identifier

Each conceptual group is a fact table split from file 130 and is released along with its related fact and dimensions.

To find which split a particular Fileman field is grouped into, [this excel document](https://vaww.cdw.va.gov/metadata/Metadata%20Documents/Surgery/surgery130Split.xlsx?Web=1) is provided for searching on Fileman field number, Fileman fieldname, CDW fieldname, or conceptual group.

# Schema & Security

Surgery utilizes the following schema for security:

* [Surg] for Surgery fact views (relating to an event)
* [Dim] Dimension views for cross reference and look up
* [SPatient] views which contain Patient Health Information, protected at a higher level of National Data Systems authorization.

# Details

Four additional views are added to the Surgery 1.0 domain.

* Surg.SurgeryPOST File #130, 76 columns
* Dim.Prosthesis File #136
* SPatient.ImplantedProsthesis File #130.01
* SPatient.OperationsIndication File #130.055
  + The free text sub-file OperationsIndication was found to contain many instances of patient and provider-specific information, including PII. The Surgery domain team determined it preferable to protect the whole view in the SPatient schema.

These views are added to the existing Surgery domain views of:

* Surg.SurgeryPRE File #130, 139 columns
* Surg.SurgeryINTRA File #130, 161 columns
* Dim.SurgeryTransportDevice File #131.01
* Dim.AnesthesiaSupervisorCode File #132.95
* Dim.ASAClass File #132.8
* Dim.AttendingCode File #132.9
* Dim.ElectrogroundPosition File #138
* Dim.SkinIntegrity File #135.2
* Dim.SkinPrepAgent File #135.1
* Dim.SurgeryPosition File #132
* Dim.EventCaptureSpecialty File #732
* Dim.LocalSurgicalSpecialty File #137.45
* Dim.OperatingRoom File #131.7
* Dim.OperatingRoomType File #134
* Dim.PatientConsciousness File #135.4
* Dim.PatientMood File #135.3
* Dim.SurgeryCancelReason File #135
* Dim.SurgeryDisposition File #131.6

# Data Quality Issues addressed

* The Data Quality Team has completed an assessment of SurgeryPOST; checking referential integrity of Foreign Keys, completeness of data descriptions and veracity of CDW data against source site data.
* Out of 130 Vista sites, there are 9 stations that do not have surgical data and 1 station with 330 records, the majority prior to 10/1/1999. This is an accurate reflection.
* SurgeryINTRA and SurgeryPOST contain records for all SurgerySIDs consistent with SurgeryPRE. Surgery cases which have not been completed will have null values in non-populated fields.
* Surg.SurgeryPOST.LocalSurgicalSpecialtySID contains a high number of null values. This field is required but is not populated when the NonOR procedure flag is set to Yes.
* SPatient.ImplantedProsthesis.ProviderReadBackPerformed does not reflect “Yes/No/null” values at all sites. The historical extract of data includes data prior to standard required values. With the exception of a single site, the invalid values occur in cases several years in age.

# Special note:

Surgical cases entered prior to Surgery package patch SR\*182 in Dec 2014 did not follow consistent standardized format. CDW has preserved field contents as entered by the site. Questions defining non-standard codes must be directed to the originating site.

# ER Diagrams

[ER Diagram for SurgeryPRE](https://vaww.cdw.va.gov/metadata/Reports/Images/SurgeryPRE_4377.jpg)

[Entity Relationship Diagram for SurgeryINTRA](https://vaww.cdw.va.gov/metadata/Reports/Images/SurgeryINTRA_4385.jpg)

[Entity Relationship Diagram for SurgeryPOST](https://vaww.cdw.va.gov/metadata/Reports/Images/SurgeryPOST_5428.jpg)

# Metadata Report

[CDW Metadata Page](https://vaww.cdw.va.gov/metadata/default.aspx) and then click on Metadata report.

# CDWWork.Meta Views

Use the following views, available on VHACDWA01 to query the metadata. If there is more than one version of a view (as during the period of transition from 1.0 to 2.0) two instances of The objects will appear in the queries below. In that case one view will be deployed to CDWNext (or SPVNext) while the other one will remain in CDWWork (or RDWWork or SPV).

Meta.DWView

Example:

select DWViewSchema, DWViewName, SourceFileName, SourceFileNumber, SourceFileDescription

from CDWWork.Meta.DWView

where ERDiagrams like 'Surgery%'

order by ERDiagrams, DWViewSchema, DWViewName

Meta.DWViewField

Example:

select \*

from CDWWork.Meta.DWViewField

where ERDiagrams like 'Surgery%'

order by DWViewSchema, DWViewName

use cdwwork;

--Meta.DWViewForeignKey

--Example:

select \* from Meta.DWViewForeignKey

where FKViewName like 'Surgery%'

order by FKViewFieldName, FKViewVersion

# Other Links:

[CDW Support](https://vaww.cdw.va.gov/Support/SitePages/CDWSupportHome.aspx)

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