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# Introduction

This document will provide the detail design specifications for the eICU Research Institute (eRI) data warehouse. This solution is designed to make all eCareManager (eCM) application data available to research initiatives via a Structured Query Language (SQL) interface while adhering to HIPAA compliance for patient data storage.

Currently, a subset of Philips Telehealth clients submit their discharged patient data every quarter in order to receive benchmarking reports that measure their success with the eICU program. While this program is a great success, Philips Telehealth feels that there is greater potential within the eCM data for furthering additional research initiatives on patient outcomes, trends, and other best practice protocols in use today at most healthcare facilities.

In order to ensure that HIPAA compliance is met with this design, Philips Telehealth contracted with a independent company, Privacert, in order to test and certify the design is properly constructed with patient confidentiality in mind. In working with Privacert, three different options were presented that would be considered HIPAA safe:

## SAFE HARBOR PROVISION

* 1. This method of de-identification relies on the removal of 18 different identifying elements from the patient data in order to guarantee patient confidentiality.

## HIPAA LIMITED DATA SET

* 1. This method requires all users to enter into a date use agreement that includes the follow data elements
     1. Identify Recipient
     2. Not use beyond intended purposes
     3. Not distribute further
     4. Not identify the individuals or contact the individuals
     5. “Minimum necessary” released

## HIPAA SCIENTIFIC STANDARD

* 1. This method involves the data meets generally accepted statistical and scientific principles and methods, that the risk is very small that the information could be used, alone or in combination with other reasonably available information, by the anticipated recipient to identify the subject of the information.
     1. Includes replacement of unique identification values with sequential number generation schema

Philips Telehealth elected to utilize the Safe Harbor Provision de-identification method. A HIPAA Limited Dataset does not meet Philips Telehealth’s contractual requirements. A de-identified dataset to HIPAA Scientific Standards has limited value due primarily to lack of proper time references. Therefore, the Safe Harbor Provision was selected.

## Purpose

The purpose of this document is to outline the technical design of the eICU Research Institute data warehouse and data extraction routines.

## Audience

The intended audiences for this document are Philips Telehealth stakeholders, project development, quality assurance, and outside contractors.

# Design Overview

## Architectural Goals and Constraints

The high level goal of this system is to provide a highly available data warehouse which incorporates performance and scalability into the design. The system will enable research partners to query the warehouse for statistical data, patient care trends, and other ancillary information identified by the data.

A key part of the architecture will be the ability to load the quarterly client data into the system with minimal impact to ongoing research initiatives. To meet this goal, the design of the warehouse and ETL package will be based on industry best practices for building and maintain Very Large Databases (VLDB’s).

The data extraction process (ETL) will utilize Microsoft’s SQL Server 2008 Integration Services tool. This tool has the capability to move large amounts of data very quickly from heterogeneous data sources.

## Scalability Design Specifics

Scalability will be achieved by implementing the following industry best practices:

1. Query Performance for VLDB’s
   1. To achieve support of multiple research initiatives the decision has been made to implement table partitioning as part of the design. Table partitioning allows for intelligent separation of data to improve overall query performance
   2. Analysis of standard queries to be executed will yield proper table indexes in order to provide enhance SQL performance
2. Manageability and maintenance for VLDB’s
   1. Maintenance jobs will be implemented to ensure that the warehouse is being properly backed-up at regular intervals to prevent data loss.
   2. Nightly index defragmentation routines will be used to ensure data integrity and alignment is at optimum levels for SQL performance.

# Detailed Design

This section will cover the specifics of the warehouse and ETL design.

## ETL High Level Processes

The ETL process will extract client data from eCM databases and merge it into the eRI data warehouse. The following diagram is a high level overview of the full ETL process.



H

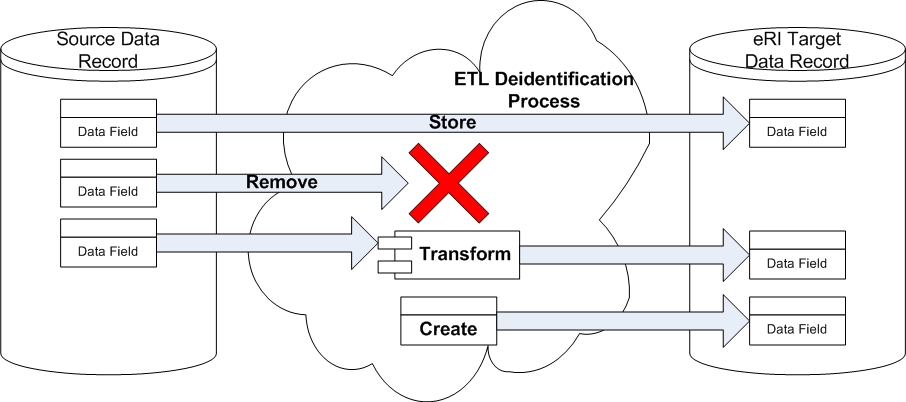
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Investigation Queries

Investigation DB

1. eCareManager Client Data
   * Data from eCareManager Client Databases is sent to Philips Telehealth and APACHE® Reporting processes on a quarterly basis.
   * Only client databases authorized for eRI loading are processed. The ETL package performs a data base identity check to verify the source against an approved list of data bases that are authorized for loading. The list of authorized client databases is hard coded in the ETL package definition itself.
   * The Social Security Administration’s (SSA) Death Master File is utilized to determine dates of death (if available) for matching eICU patients
2. Processed Data from eCareManager through APACHE® API, Center for Disease Control and Prevention (CDC) National Death Index and the Social Security Adminitration (SSA) Death Master File
   * The Philips Telehealth processing produces Benchmark data that allows for comparative reporting across health systems when run internally at Philips Telehealth. The APACHE® processing produces comparative scoring for each health systems unit. The date of death (if available) is extracted from the CDC National Death Index and/or the SSA’s Death Master File. Once processed, the data is stored in denormalized form. This includes data that comes directly from eCareManager and data that has been derived based on eCareManager data points.
3. Benchmark Reporting and APACHE® Reporting, CDC National Death Index, and SSA Death Master File Data
   * Data from both the Benchmark Reporting and APACHE® Reporting, CDC National Death Index and the SSA Death Master File systems are sent through the eRI ETL process. This de-identified data (see G. below) is sent directly to the eICU Research Institute database.
4. eRI ETL Processing
   * The eRI ETL process utilizes data from the eCareManager client (D), Benchmark Reporting, and APACHE Reporting CDC National Death Index and SSA Death Master File (C) databases. The eRI ETL Process associates data from all sources from a single patient stay to that single patient. Subsequent stays by the same patient are independently processed. Patient stays are independent and are not linked across hospital stays.
   * The ETL process is run quarterly and the data is loaded incrementally for new data only.
5. eRI ETL Index Data
   * The ETL process stores patient identifying data in the eRI ETL Index database that is used for iterative data processing only (AuditETLRunID). This identifying data is used only to determine which patients from the source data have already been processed.
   * Access to the ETL index is restricted to operational database administrators only, and seperation of duties will be employed to insure that access to the ETL index will not be provided to any database engineer or administrator who has access to the eRI database.
6. eICU/ICU Survey Data
   * The eRI ETL process also utilizes data from the eICU/ICU Surveys. This data is collected manually and is then entered into denormalized form into the database. Hospital demographic categories are derived from this data and sent to the eICU Research database. Hospital identifying data is not sent to the eICU Research database.
7. eICU Research Institute De-identified Data
   * All data stored in the eRI Research Institute database has been denormalized and de-identified. It **does not** include any of the following Protected Health Information (PHI) data points:
     + Patient Names or Initials
     + Street Address (geographic subdivisions smaller than a state)
     + State
     + Birth Date
     + Admission Date (Hospital or Unit)
     + Discharge Date (Hospital or Unit)
     + Date of Death
     + Ages >89 and all parts of age that indicate such an age
     + Telephone Numbers
     + Fax Numbers
     + E-mail addresses
     + Social Security Numbers
     + Medical Record Numbers
     + Health Plan Beneficiary Numbers
     + Account Numbers
     + Certificate/License Numbers
     + Vehicle Identifiers
     + Device Identifiers & Serial Numbers
     + Web Universal Resource Locators (URLs)
     + Internet Protocol (IP) Addresses
     + Biometric Identifiers, including finger and voice prints
     + Facial Photographs and any comparable images
     + Any other Unique Identifying Number, Characteristic or Code
     + Health System/Hospital Names
     + Health System/Hospital Locations
     + Source Data Surrogate Keys (Philips Telehealth GUIDs)
   * All dates and times of events in the eICU Research database have been derived from source data date/time fields. One time fields will contain the text: “midnight”, “morning”, “midday”, “noon”, “evening”, or “night” depending on the time of day that the event occurred. The other time field will contain the time in twenty-four hour format of when the event occurred: “12:30”, “14:56”. These time slots are based on Philips Telehealth determined time periods during a 24 hour period.
   * Date offset fields in the eICU Research database are used to determine sequencing of events during a unit stay. The offset fields are number of minutes that the event occurred since the unit admit date/time.
   * Table partitioning and the partitionKey field for each table are explained in more detail below in section 3.2.
   * All ID fields (any field name ending in “ID”; e.g., admissionDxID or patientUnitStayID) are sequentially generated integers that have no association with any keys in the source database. These IDs are generated via SQL Server IDENTITY column feature. This allows the system to automatically generate primary and foreign keys for the eICU Research database.
   * No free-text fields that could plausibly be used or misused to include PHI from the source databases are stored in the eICU Research database.
8. Extracted Data Set for Research Analysis
   * A subset of the overall eICU Research Database is extracted that meets the minimum data requirements for each research project, on a project by project basis. This is typically a small targeted subset of data, but a larger data inclusive of many parameters is not precluded. The research partner receives multiple data sets over time, but is restricted contractually from using the data for any other purpose besides the specific project for which it is delivered.
   * De-identification processing

Each data field within a source data record is subject to one of four ETL operations as depicted in the below diagram.



### Stored Data

Source data fields that do not contain identifying information are stored in the target de-identified eRI data base as-is. This is the default operation. All data fields discussed within this document are assumed to be stored as-is unless otherwise specified.

#### Structured Text Storage

1. For flexibility in data storage, structured workflow entries are stored in the target eRI data base as text data types. These entries represent data selections that are limited in the source application e.g. ‘pick list’ navigation or ‘string builder’ data entry mechanisms. The resultant text fields in the target data base represent the data entry workflow (i.e. multiple data selections) as concatenated and delimited strings.

### Removed Data

1. Clearly identifying data, such as Patient Name, Address, Social Security Number, etc.,and any unstructured ‘free text’ fields (e.g. free-form Notes data or comment fields), from the source data records are simply removed from the data transfer record and not transferred to the target de-identified eRI data base in any way.

### Transformed Data

1. Certain data, e.g. time related fields are important to eRI research purposes, but, when taken into consideration with other data fields, constitute potentially identifying information. These data fields are transformed by the ETL De-identification process into abstract information to eliminate or substantially reduce re-identification potential to within acceptable levels. Specific transformation rules are detailed below.

#### Birthdate source fields to Age target fields

1. The patient age is determined by using the source ‘date of birth’ and the ‘unit admit date’ fields. A target fields ‘Age’ is stored as a whole number (integer) representing the number of years from date of birth to unit admit date. Ages over 89 are stored as ”>89”.

#### DateTime source fields to Year, DateGroup, and TimeGroup fields

1. Source DateTime type fields are transformed into three target fields: Year, DateGroup, and TimeGroup.

##### Year

1. Year is extracted from the source DateTime and transformed into a four digit year in ‘Year’.

##### Time Group

1. Target fields with the fieldname suffix ‘Time’ are split into 2 different fields. The first field breaks time into a aggregated groups: “midnight”, “morning”, “midday”, “noon”, “evening”, or “night” depending on the time of day that the event occurred. These time slots are based on Philips Telehealth determined time periods during a 24 hour period. The second field stores the actual daylight savings adjusted time in a 24 hour format (e.g. “12:35”, “15:30”, etc…).

### Created Data

#### Record Sequence ID

1. All target fields with the fieldname suffix ‘ID’ (i.e. record sequence numbers (surrogate keys) and relational link ID’s) are created for each eRI ETL De-identification record import operation to be new, unique, arbitrary, and unrelated to source data in the target data base. These ID’s are created as sequential, numerical auto-index fields by intrinsic MSSQL functions built for that purpose. In the event a source data record must be reprocessed by the eRI ETL De-identification process for re-import into the eRI data base, it will receive a new sequence ID (deleted record ID’s are not reused). These auto-sequence identity keys exist as abstract integers in the range of 0 – (2^32-1) and are independently generated for each target data base table.

#### Event Offset Times

1. Event offset time fields in the eICU Research database are used to determine sequencing of events during a unit stay. The event offset time fields are created from the respective unit admit date/time and stored as number of minutes after the unit admit date/time that the event occurred. Unit admit date/time fields are removed and not transferred to the eRI target eICU Research Data Base.

#### Hospital and ICU Unit

1. The hospital and ICU unit is identified by a field in the patient table named locationID. The locationID field is generated by the ETL process and consists of a system generated integer that represents the ICU unit within the hospital.

## Relational Characteristics

All internal linking between tables in the target eRI data base are based on the newly created, deidentified surrogate record sequence ID’s. Source data Hospital System and Unit identifiers are removed.

## Database Architecture

The data warehouse will use SQL Server 2008 as the backend host for the data.

### Table Partitioning Schema

The following partitioning schema will be used on each table (where appropriate) within the data warehouse. This will maximize system performance as well as ensure that no single table becomes too large to manage.

The eICU Research Institute database will utilize SQL Server 2008 partitioning which will place each row of data on a particular partition (area of disk) based on a field that is present in each table (partitionKey). The partitionKey field, defined in the table below, is derived from a designated offset field in each database table. The offset field is the number of minutes that have elapsed since unit admission and the given date. For example, if 3720 minutes have elapsed, the offset value is 2 days and 14 hours. Hours **14** and 15 fall into partitionKey **8** as shown below.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **partitionKey** | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| **Hours** | 0,1 | 2,3 | 4,5 | 6,7 | 8,9 | 10,11 | 12,13 | 14,15 | 16,17 | 18,19 | 20,21 | 22,23 |

This schema breaks down the data elements into 12 separate partitions that will evenly spread the data across the physical storage. A SQL scalar function will be used to identify what partition a particular data element belongs to and will return the appropriate partition number.

## Data Coverage

1. The data that is being imported into the eRI system is a combination of many ICUs and Hospitals throughout the continental United States. The earliest data in the system is from 2002, with the majority of data collected since 2005.
2. Deidentification certification is desired against all 50 U.S. states, to allow for additional ICUs to come on line in states that are not already covered.
3. The following table describes all of the states that have participated in the eICU program and have agreed to allow their data to be used in clinical studies to date.
4. A designation of ‘Current’ is used to indicate programs under contract and have ICUs monitored in the state and participate in the eRI program. A designation of ‘Future’ is used to indicate programs under contract that have ICUs monitored in the state but do not currently participate in the eRI program. A designation of ‘No Coverage’ is used to indicate states in which no eICU coverage exists at this time.

|  |  |
| --- | --- |
| **States** | **Status** |
| Alabama | No Coverage |
| Alaska | Current |
| Arkansas | Current |
| Arizona | Current |
| California | Current |
| Colorado | Current |
| Conneticut | No Coverage |
| Delaware | Current |
| District of Columbia | No Coverage |
| Florida | Current |
| Georgia | Current |
| Hawaii | No Coverage |
| Iowa | Current |
| Idaho | Future |
| Illinois | Current |
| Indiana | Future |
| Kansas | Current |
| Kentucky | Current |
| Louisiana | Future |
| Massachusetts | Current |
| Maryland | Current |
| Maine | Current |
| Michigan | Current |
| Missouri | Current |
| Mississippi | Current |
| Minnesota | Current |
| Montana | No Coverage |
| New Hampshire | No Coverage |
| New Jersey | Current |
| New Mexico | Current |
| New York | Future |
| Nevada | Current |
| North Carolina | Current |
| North Dakota | Current |
| Nebraska | Current |
| Ohio | Current |
| Oklahoma | Current |
| Oregon | Current |
| Pennsylvania | Current |
| Rhode Island | No Coverage |
| South Carolina | Current |
| South Dakota | Current |
| Tennessee | No Coverage |
| Texas | Future |
| Utah | No Coverage |
| Virginia | Current |
| Washington | Current |
| West Virginia | No Coverage |
| Wisconsin | Current |
| Wyoming | Current |
| Vermont | No Coverage |

## Data tables

1. This section will list all of the tables that will be part of the schema and their source data table(s).

| **Name** | **Source Data Table** |
| --- | --- |
| **admissionDrug** | from note, admitDrug |
| **admissionDx** | from admissionDiagnosis, admissionDiagnosisItem |
| **allergy** | from note, allergy |
| **apacheApsVar** | from Apache.dbo.apache\_ApsVar |
| **apachePatientResults** | from Apache.dbo.apache\_patient\_results |
| **apachePredVar** | from Apache.dbo.apache\_PredVar |
| **apachePrePatient** | from apacePreDB..apacheStay |
| **apachePrePatientResult** | from apacePreDB..apacheAPIResult |
| **apachePrePatientVar** | from apacePreDB..apacheStayVar |
| **autoAcuityOverride** | from autoAcuityOverrideHistory |
| **autoAcuityQuickEntry** | from autoAcuityQuickEntry |
| **autoAcuityScore** | from autoAcuityScore |
| **billing** | from note, noteItem |
| **carePlanCareProvider** | from cplHistory, cplGroup, and cplItemCareProvider |
| **carePlanEOL** | from cplHistory, cplGroup, and cplItemEol |
| **carePlanGeneral** | from cplHistory, cplGroup, and cplItemGeneral |
| **carePlanGoal** | from cplHistory, cplGroup, and cplItemGoal |
| **carePlanInfectiousDisease** | from cplHistory, cplGroup, and cplItemInfectiousDisease |
| **cdcNDI** | (Center for Disease Control (CDC) National Death Index matching data) |
| **cdcNDICause** | (CDC Cause of Death information from NDI Plus data files) |
| **customLab** | from abgOtherValue, chemistryOtherValue, drugLevelOtherValue, hematologyOtherValue, miscOtherValue, sensitiveOtherValue |
| **diagnosis** | from patientDXRxItemSet, patientDxRx, patientDxRxLeaf, vrefDxRx, vrefDxRxCodingMap, and vrefCode |
| **infusionDrug** | from fsVSIColumn, fsVSICell, fsVSICellAttribute |
| **intakeOutput** | from fsIOColumn, fsIOCell,fsIOCellAttribute |
| **lab** | from abgLab, chemistryLab, drugLevelLab, hematologyLab, miscLab, sensitiveLab |
| **lineTubeDrain** | from lineTubeDrainHistory |
| **medication** | from medicalOrder, drugOrder, drugOrderHistory, drugList |
| **microLab** | from microbiology, microOrganism, and microSensitivity |
| **note** | from note, noteItem |
| **nurseAssessment** | from fsNAColumn, fsNACell, fsNACellAttribute, fsNACustomLabel |
| **nurseCare** | from fsNCColumn, fsNCCell, fsNCCellAttribute, fsNCCustomLabel |
| **nurseCharting** | from fsVSIColumn, fsVSICell, fsVSICellAttribute, fsVSICustomLabel |
| **pastHistory** | from note, noteItem |
| **patient** | from person, patient, patientHealthSystemStay, patientWardStay, ward |
| **patientProvider** | from providerPateintStay |
| **patientRegistry** | from prReportDataHistory |
| **physicalExam** | from note, noteItem |
| **programForm** | from pfPatientForm, pfDataPointHistory, vrefProgramFormDataPointDefinition |
| **protocol** | from dataPointChangeSet, dataPointHistory, episode, vrefDataPointDefinition |
| **respiratoryCare** | from respFlowsheetCareStatusHistory |
| **respiratoryCharting** | from respFlowsheetColumn respFlowsheetCell, respFlowsheetCustomLabel |
| **riskScore** | from drsScore |
| **rsReportBucket** | from Reporting Solutions database, dwDB. tables: rs.patientStay, rs.reportBucket, and rs.vrefReportCondition |
| **smartAlert** | from saAlert, saEvent, saPatientAlert, saPatientEvent |
| **ssaDMF** | (Social Security Death Master File matching data) |
| **surveyEICU** | (see eICU Organizational Survey below in Section 4) |
| **surveyICU** | (see ICU Organizational Survey below in Section 4) |
| **treatment** | from patientDXRxItemSet, patientDxRx, patientDxRxLeaf, and vrefDxRx |
| **videoData** | from camera, cameraType, videoSession |
| **vitalAperiodic** | from vitalSignAperiodic |
| **vitalPeriodic** | from vitalSignPeriodic5minute |

### admissionDrug

| **Columns of "admissionDrug" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| admissionDrugID | int | IDENTITY | surrogate key for the admission drug | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| drugYear | smallint | NOT NULL | year when the admission drug was administered | No | No | T |
| drugTime24 | time(0) | NOT NULL | time in 24 hour format of when the drug was administered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| drugTime | varchar(20) | NOT NULL | time frame when the admission drug was administered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| drugOffset | int | NOT NULL | number of minutes from unit admit time that the admission drug was administered | No | No | C |
| drugEnteredYear | smallint | NOT NULL | year when the admission drug was entered | No | No | T |
| drugEnteredTime24 | time(0) | NOT NULL | time in 24 hour format of when the admission drug was admnistered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| drugEnteredTime | varchar(20) | NOT NULL | time frame when the admission drug was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| drugEnteredOffset | int | NOT NULL | number of minutes from unit admit time that the admission drug was entered | No | No | C |
| drugNoteType | varchar(255) | NOT NULL | unique note picklist types e.g.:  Comprehensive Progress  Admission  Intubation | No | No | S |
| specialtyType | varchar(255) | NOT NULL | physician specialty picklist types e.g.:  anesthesiology  gastroenterology  oncology | No | No | S |
| userType | varchar(255) | NOT NULL | eCareManager user picklist types e.g.:  eICU Physician  Nurse  Attending Physician | No | No | S |
| rxIncluded | varchar(5) | NOT NULL | Does the Note have associated Rx data:  True or False | No | No | S |
| writtenIneICU | varchar(5) | NOT NULL | Was the Note written in the eICU:  True or False | No | No | S |
| drugName | varchar(255) | NOT NULL | name of the selected admission drug e.g.:  POTASSIUM CHLORIDE/D5NS  METAXALONE  PRAVACHOL | No | No | S |
| drugDosage | decimal(11,4) | NULL | dosage of the admission drug e.g.:  20.0000  400.000 | No | No | S |
| drugUnit | varchar(1000) | NULL | picklist units of the admission drug e.g.:  mg  mg/kg  patch | No | No | S |
| drugAdmitFrequency | varchar(1000) | NULL | picklist frequency with which the admission drug is administred e.g.:  PRN  twice a day  at bedtime | No | No | S |
| drugHiclSeqno | int | NULL | HICL sequence number for the drug e.g.:  2734  33199  20492 | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### admissionDx

| **Columns of "admissionDx" Table** | | | | |  | |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| admissionDxID | int | IDENTITY | surrogate key for the admission diagnosis | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| admitDxEnteredYear | smallint | NOT NULL | year when the admission diagnosis was entered | No | No | T |
| admitDxEnteredTime24 | time(0) | NOT NULL | time in 24 hour format of when the admission Dx was entered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| admitDxEnteredTime | varchar(20) | NOT NULL | time frame when the admission diagnosis was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| admitDxEnteredOffset | int | NOT NULL | number of minutes from unit admit time that the admission diagnosis was entered | No | No | C |
| admitDxPath | varchar(500) | NOT NULL | the admission diagnosis' item's full path e.g.:  admission diagnosis|All Diagnosis|Non-operative|Diagnosis|Cardiovascular|Angina, stable (asymp or stable pattern of symptoms w/meds) | No | No | S |
| admitDxName | varchar(255) | NULL | admission diagnosis' item's name e.g.:  Angina, stable (asymp or stable pattern of symptoms w/meds) | No | No | S |
| admitDxText | varchar(255) | NULL | admission diagnosisamplifying valuee.g.: 42, 50 | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### allergy

| **Columns of "allergy" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| allergyID | int | IDENTITY | surrogate key for the allergy | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| allergyYear | smallint | NOT NULL | year when the allergy was detected | No | No | T |
| allergyTime24 | time(0) | NOT NULL | time in 24 hour format of when the allergy was detected e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| allergyTime | varchar(20) | NOT NULL | time frame when the allergy was detected: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| allergyOffset | int | NOT NULL | number of minutes from unit admit time that the allergy was detected | No | No | C |
| allergyEnteredYear | smallint | NOT NULL | year when the allergy was entered | No | No | T |
| allergyEnteredTime24 | time(0) | NOT NULL | time in 24 hour format of when the allergy was entered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| allergyEnteredTime | varchar(20) | NOT NULL | time frame when the allergy was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| allergyEnteredOffset | int | NOT NULL | number of minutes from unit admit time that the allergy was entered | No | No | C |
| allergyNoteType | varchar(255) | NOT NULL | unique note picklist types e.g.:  Comprehensive Progress  Admission  Intubation | No | No | S |
| specialtyType | varchar(255) | NOT NULL | physician specialty picklist types e.g.:  anesthesiology  gastroenterology  oncology | No | No | S |
| userType | varchar(255) | NULL | eCareManager user picklist types e.g.:  eICU Physician  Nurse  Attending Physician | No | No | S |
| rxIncluded | varchar(5) | NOT NULL | Does the Note have associated Rx data:  True or False | No | No | S |
| writtenIneICU | varchar(5) | NOT NULL | Was the Note written in the eICU:  True or False | No | No | S |
| drugName | varchar(255) | NULL | name of the selected admission drug e.g.:  POTASSIUM CHLORIDE/D5NS  METAXALONE  PRAVACHOL | No | No | S |
| allergyType | varchar(255) | NOT NULL | type of allergy:  Drug or Non Drug | No | No | S |
| alleryName | varchar(255) | NOT NULL | allergy picklist name e.g.:  penicillins  pollen  shellfish | No | No | S |
| drugHiclSeqno | int | NULL | HICL sequence number for the drug if drug allergy e.g.: 2734, 33199, 20492 | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### apacheApsVar

| **Columns of "apacheApsVar" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| apacheApsVarID | int | IDENTITY | surrogate key for APACHE APS (input) variables | Yes | No | S |
| patientUnitStayID | int | NOT NULL | surrogate key for the patient | No | Yes | C |
| intubated | int | NULL | set to 0 when not populated; set to 1 when the patient is intubated at the time of the worst ABG result | No | No | S |
| vent | int | NULL | set to 0 when not populated; set to 1 when the patient is ventilated at the time of the worst respiratory rate | No | No | S |
| dialysis | int | NULL | set to 0 when not populated; set to 1 when it is indicated that the patient is on dialysis | No | No | S |
| eyes | int | NULL | set to NULL when not populated; set to 0 when meds field below is 1 (no GCS score); set to the value of the APACHE API’s eyes value in the worst GCS data set when the patient has a valid GCS score; range from 1 to 4 | No | No | S |
| motor | int | NULL | set to NULL when not populated; set to 0 when meds field below is 1 (no GCS score); set to the value of the APACHE API’s motor value in the worst GCS data set when the patient has a valid GCS score; range from 1 to 6 | No | No | S |
| verbal | int | NULL | set to NULL when not populated; set to 0 when meds field below is 1 (no GCS score); set to the value of the APACHE API’s verbal value in the worst GCS data set when the patient has a valid GCS score; range from 1 to 5 | No | No | S |
| meds | int | NULL | set to NULL when not populated; set to 1 when “unable to score due to meds” is selected and no GCS score is available for the APACHE day; set to 0 when “unable to score due to meds” is not selected and a valid GCS score is set | No | No | S |
| urine | float(53) | NULL | set to NULL when not present; set to the APACHE API’s summed 24 hour urine output value when present | No | No | S |
| wbc | float(53) | NULL | set to NULL when not present; set to the APACHE API’s worst WBC (white blood count) lab value when present | No | No | S |
| temperature | float(53) | NULL | set to NULL when not present; set to the APACHE API’s worst Celsius temperature value when present | No | No | S |
| respiratoryRate | float(53) | NULL | set to NULL when not present; set to the APACHE API’s worst respiratory rate value when present | No | No | S |
| sodium | float(53) | NULL | set to NULL when not present; set to the APACHE API’s worst sodium lab value when present | No | No | S |
| heartRate | float(53) | NULL | set to NULL when not present; set to the APACHE API’s worst heart rate value when present | No | No | S |
| meanBp | float(53) | NULL | set to NULL when not present; set to the APACHE API’s worst mean blood pressure value when present | No | No | S |
| ph | float(53) | NULL | set to NULL when not present; set to the APACHE API’s pH value for the worst ABG data set when present | No | No | S |
| hematocrit | float(53) | NULL | set to NULL when not present; set to the APACHE API’s worst Hct lab value when present | No | No | S |
| creatinine | float(53) | NULL | set to NULL when not present; set to the APACHE API’s worst creatinine lab value when present | No | No | S |
| albumin | float(53) | NULL | set to NULL when not present; set to the APACHE API’s worst albumin lab value when present | No | No | S |
| pao2 | float(53) | NULL | set to NULL when not present; set to the APACHE API’s PaO2 value for the worst ABG data set when present | No | No | S |
| pco2 | float(53) | NULL | set to NULL when not present; set to the APACHE API’s paCO2 value for the worst ABG data set when present | No | No | S |
| bun | float(53) | NULL | set to NULL when not present; set to the APACHE API’s worst BUN lab value when present | No | No | S |
| glucose | float(53) | NULL | set to NULL when not present; set to the APACHE API’s worst glucose lab value when present | No | No | S |
| bilirubin | float(53) | NULL | set to NULL when not present; set to the APACHE API’s worst bilirubin lab value when present | No | No | S |
| fio2 | float(53) | NULL | set to NULL when not present; set to the APACHE API’s FiO2 value for the worst ABG data set when present | No | No | S |

### apachePatientResults

| **Columns of "apachePatientResults" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| apachePatientsResultsID | int | IDENTITY | surrogate key for the APACHE patient results | Yes | No | S |
| patientUnitStayID | int | NOT NULL | surrogate key for the patient | No | Yes | C |
| physicianSpeciality | varchar(50) | NULL | Physician Specialty picklist value | No | No | S |
| physicianInterventionCategory | varchar(50) | NULL | Physician Intervention Category picklist value | No | No | S |
| acutePhysiologyScore | int | NULL | Acute Physiology Score from Apache API | No | No | S |
| apacheScore | int | NULL | Apache Score. Calculated from acutePhysiologyScore | No | No | S |
| apacheVersion | tinyint | NOT NULL | The version of the APACHE algorithm used to produce the apacheScore (e.g 3, 4) | No | No | S |
| predictedICUMortality | varchar(50) | NULL | Predicted ICU Mortality from Apache API | No | No | S |
| actualICUMortality | varchar(50) | NULL | Actual ICU Mortality | No | No | S |
| predictedICULOS | float(53) | NULL | Predicted ICU Length of Stay from Apache API | No | No | S |
| actualICULOS | float(53) | NULL | Actual ICU Length of Stay | No | No | S |
| predictedHospitalMortality | varchar(50) | NULL | Predicted Hospital Mortality from Apache API | No | No | S |
| actualHospitalMortality | varchar(50) | NULL | Actual Hospital Mortality | No | No | S |
| predictedHospitalLOS | float(53) | NULL | Predicted Hospital Length of Stay from Apache API | No | No | S |
| actualHospitalLOS | float(53) | NULL | Actual Hospital Length of Stay. Value is 30 when when > 30 days. | No | No | S |
| preopMI | int | NULL | Indicates if patient has pre –Operative Myocardial Infraction | No | No | S |
| preopCardiacCath | int | NULL | Indicates if patient has pre –Operative cardiac catheterization | No | No | S |
| PTCAwithin24h | int | NULL | 0/1. 1- Patient had PTCA with 24 hrs | No | No | S |
| unabridgedUnitLOS | float(53) | NULL | Actual ICU Length of stay | No | No | S |
| unabridgedHospLOS | float(53) | NULL | Actual Hospital Length of stay | No | No | S |
| actualVentdays | float(53) | NULL | Actual Ventilation days. Value is 30 when Actual Ventilation > 30 | No | No | S |
| predVentdays | float(53) | NULL | Predicted ventilation days from Apache API | No | No | S |
| unabridgedActualVentdays | float(53) | NULL | Actual Ventilation days | No | No | S |

### apachePredVar

| **Columns of "apachePredVar" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| apachePredVarID | int | NOT NULL | surrogate key for the APACHE Prediction variables | Yes | No | S |
| patientUnitStayID | int | NOT NULL | surrogate key for the patient | No | Yes | C |
| sicuDay | int | NULL | set to default value 1 | No | No | S |
| saps3Day1 | int | NULL | set to default value 0 | No | No | S |
| saps3Today | int | NULL | set to default value 0 | No | No | S |
| saps3Yesterday | int | NULL | set to default value 0 | No | No | S |
| gender | int | NULL | Female =1, Male = 0 , Not available =-1 | No | No | S |
| teachType | int | NULL | Set to default value of 0 | No | No | S |
| region | int | NULL | Set to default value of 3 | No | No | S |
| admitSource | int | NULL | Number indicating admit Source for a unit (1 to 8) | No | No | S |
| graftCount | int | NULL | Number selected for the patient when a CABG admission diagnosis is selected for the patient in eCare. Default is 3 | No | No | S |
| meds | int | NULL | 0 when ‘unable to score due to meds’ is not selected in eCare or there are valid GCS values. 1 when ‘unable to score due to meds’ is selected in eCare. -1 when no meds info is available | No | No | S |
| verbal | int | NULL | GCS verbal score from worst GCS set | No | No | S |
| motor | int | NULL | GCS motor score from worst GCS set | No | No | S |
| eyes | int | NULL | GCS eyes score from worst GCS set | No | No | S |
| age | int | NULL | Age in years | No | No | S |
| admitDiagnosis | varchar(11) | NULL | Apache admission diagnosis code | No | No | S |
| thrombolytics | int | NULL | 0/1. 0 – Patient doesn’t has thrombolytics, 1 - Patient has thrombolytics | No | No | S |
| diedInHospital | int | NULL | 0/1. 1 – Patient died in hospital | No | No | S |
| aids | int | NULL | 0/1. 0 – Patient doesn’t has aids, 1 - Patient has aids | No | No | S |
| hepaticFailure | int | NULL | 0/1. 0 – Patient doesn’t has hepaticFailure, 1 - Patient has hepaticFailure | No | No | S |
| lymphoma | int | NULL | 0/1. 0 – Patient doesn’t has lymphoma, 1 - Patient has lymphoma | No | No | S |
| metastaticCancer | int | NULL | 0/1. 0 – Patient doesn’t has metastaticCancer, 1 - Patient has metastaticCancer | No | No | S |
| leukemia | int | NULL | 0/1. 0 – Patient doesn’t has leukemia, 1 - Patient has leukemia | No | No | S |
| immunosuppression | int | NULL | 0/1. 0 – Patient doesn’t has immunosuppression, 1 - Patient has immunosuppression | No | No | S |
| cirrhosis | int | NULL | 0/1. 0 – Patient doesn’t has cirrhosis, 1 - Patient has cirrhosis | No | No | S |
| electiveSurgery | int | NULL | 0/1. 0 – Patient doesn’t has elective Surgery, 1 - Patient has elective Surgery | No | No | S |
| activeTx | int | NULL | 0/1. Indicates if the Patient has active Treatment | No | No | S |
| readmit | int | NULL | 0/1. Indicates if the Patient was readmitted | No | No | S |
| ima | int | NULL | Indicates if ‘Internal Mammary Artery Graft’ field was seleted in eCare or not for the patient | No | No | S |
| midur | int | NULL | Indicates if patient had MI within 6 months | No | No | S |
| ventDay1 | int | NULL | Indicates if patient was ventilated for the worst respiratory rate | No | No | S |
| oOBVentDay1 | int | NULL | Indicates if patient was ventilated at anytime for the apache day | No | No | S |
| oOBIntubDay1 | int | NULL | Indicates if patient was intubated at anytime for the apache day | No | No | S |
| diabetes | int | NULL | 0/1. 0 – Patient doesn’t has diabetes, 1 - Patient has diabetes | No | No | S |
| managementSystem | int | NULL | Not used | No | No | S |
| var03HspXlos | float(53) | NULL | Not used | No | No | S |
| pao2 | float(53) | NULL | paO2 value from the worst ABG data set for the Apache Day | No | No | S |
| fio2 | float(53) | NULL | fiO2 value from the worst ABG data set for the Apache Day | No | No | S |
| ejectFx | float(53) | NULL |  | No | No | S |
| creatinine | float(53) | NULL | Worst creatinine value for the Apache day | No | No | S |
| dischargelocation | int | NULL | Value indicating discharge location for the patient | No | No | S |
| visitNumber | int | NULL | value indicating number of unit admission | No | No | S |
| amilocation | int | NULL | 1 to 7. Value indicating AMI Location | No | No | S |
| day1meds | int | NULL | 0 when ‘unable to score due to meds’ is not selected in eCare or there are valid GCS values. 1 when ‘unable to score due to meds’ is selected in eCare. -1 when no meds info is available | No | No | S |
| day1verbal | int | NULL | GCS verbal score from worst GCS set | No | No | S |
| day1motor | int | NULL | GCS motor score from worst GCS set | No | No | S |
| day1eyes | int | NULL | GCS eyes score from worst GCS set | No | No | S |
| day1pao2 | float(53) | NULL | paO2 value from the worst ABG data set for the Apache Day | No | No | S |
| day1fio2 | float(53) | NULL | fiO2 value from the worst ABG data set for the Apache Day | No | No | S |
| partitionKey | tinyint | NOT NULL |  | No | No | C |

### apachePrePatient

| **Columns of "apachePrePatient" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| apachePrePatientID | int | NOT NULL | surrogate key for the APACHE-Pre patient data | Yes | No | C |
| ~~patientApachePreStayID~~ | ~~int~~ | ~~NOT NULL~~ | ~~surrogate key for the APACHE-Pre patient stay (NOT ASSOCIATED WITH patientUnitStayID VARIABLE IN OTHER TABLES!)~~ | ~~No~~ | ~~Yes~~ | ~~S~~ |
| hospitalAdmitYear | smallint | NOT NULL | year of the hospital admit date | No | No | T |
| hospitalAdmitTime24 | time(0) | NOT NULL | time in 24 hour format of the hospital admit e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| hospitalAdmitTime | varchar(20) | NOT NULL | time frame of the hospital admit date: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| hospitalAdmitOffset | int | NOT NULL | number of minutes from unit admit time that the patient was admitted to the hospital | No | No | C |
| hospitalDischargeYear | smallint | NOT NULL | year of the hospital discharge date | No | No | T |
| hospitalDischargeTime24 | time(0) | NOT NULL | time in 24 hour format of when the hospital discharge event occurred e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| hospitalDischargeTime | varchar(20) | NOT NULL | time frame of the hospital discharge date: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| hospitalDischargeOffset | int | NOT NULL | number of minutes from unit admit time that the patient was discharged from the hospital | No | No | C |
| unitAdmitYear | smallint | NOT NULL | year of the unit admit date | No | No | T |
| unitAdmitTime24 | time(0) | NOT NULL | time in 24 hour format of when the unit admit event occurred e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| unitAdmitTime | varchar(20) | NOT NULL | time frame of the unit admit date: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| unitDischargeYear | smallint | NOT NULL | year of the unit discharge date | No | No | T |
| unitDischargeTime24 | time(0) | NOT NULL | time in 24 hour format of when the unit discharge event occurred e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| unitDischargeTime | varchar(20) | NOT NULL | time frame of the unit discharge date: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| unitDischargeOffset | int | NOT NULL | number of minutes from unit admit time that the patient was discharged from the unit | No | No | C |
| diedInHospital | int | NULL | 0/1. 1 – Patient died in hospital | No | No | S |
| gender | varchar(25) | NULL | gender of the patient: Male, Female, Unknown,  Other, NULL | No | No | S |
| age | varchar(10) | NULL | age of the patient in full years. If the patient is over 89 years old specify "> 89" e.g.: 79, 36, 52, “> 89”, etc. | No | No | T |
| hospitalDisposition | varchar(10) | NOT NULL | Hospital disposition e.g. “Expired” or “Alive” | No | No | T |
| acutePhysiologyScore | int | NULL | Acute Physiology Score from Apache API | No | No | S |
| apacheScore | int | NULL | Apache Score. Calculated from acutePhysiologyScore | No | No | S |
| predictedICUMortality | varchar(50) | NULL | Predicted ICU Mortality from Apache API | No | No | S |
| actualICUMortality | varchar(50) | NULL | Actual ICU Mortality | No | No | S |
| predictedICULOS | float(53) | NULL | Predicted ICU Length of Stay from Apache API | No | No | S |
| actualICULOS | float(53) | NULL | Actual ICU Length of Stay | No | No | S |
| predictedHospitalMortality | varchar(50) | NULL | Predicted Hospital Mortality from Apache API | No | No | S |
| actualHospitalMortality | varchar(50) | NULL | Actual Hospital Mortality | No | No | S |
| predictedHospitalLOS | float(53) | NULL | Predicted Hospital Length of Stay from Apache API | No | No | S |
| actualHospitalLOS | float(53) | NULL | Actual Hospital Length of Stay. Value is 30 when when > 30 days. | No | No | S |
| visitNumber | smallint | NULL |  | No | No | S |
| isReAdmit | tinyint | NULL |  | No | No | S |
| actualVentdays | float(53) | NULL | Actual Ventilation days. Value is 30 when Actual Ventilation > 30 | No | No | S |
| predVentdays | float(53) | NULL | Predicted ventilation days from Apache API | No | No | S |
| ~~icuDayEnd~~ |  |  |  | ~~No~~ | ~~No~~ | ~~S~~ |
| admitSource | varchar(40) | NULL | ICU admit source | No | No | S |
| dischargeLocation | varchar(40) | NULL | ICU discharge location | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### apachePrePatientResult

| **Columns of "apachePrePatientVar" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| apachePrePatientResultID | int | IDENTITY | surrogate key for the APACHE-Pre API results | Yes | No | C |
| apachePrePatientID | int | NOT NULL | surrogate key for the APACHE-Pre patient stay (NOT ASSOCIATED WITH patientUnitStayID VARIABLE IN OTHER TABLES!) | No | Yes | S |
| version | char(1) | NULL | APACHE API version designator | No | No | S |
| resultValue | varchar(100) | NULL | APACHE-Pre API result value | No | No | S |
| equationName | varchar(50) | NULL | APACHE-Pre API equation name | No | No | S |
| ~~partitionKey~~ | ~~tinyint~~ | ~~NOT NULL~~ | ~~partition key of table~~ | ~~No~~ | ~~No~~ | ~~C~~ |

### apachePrePatientVar

| **Columns of "apachePrePatientVar" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| apachePrePatientVarID | int | IDENTITY | surrogate key for the APACHE-Pre API variables | Yes | No | C |
| apachePrePatientID | int | NOT NULL | surrogate key for the APACHE-Pre patient stay (NOT ASSOCIATED WITH patientUnitStayID VARIABLE IN OTHER TABLES!) | No | Yes | S |
| variableName | varchar(60) | NULL | APACHE API input variable name | No | No | S |
| variableValue | varchar(60) | NULL | APACHE API input variable value | No | No | S |
| ~~partitionKey~~ | ~~tinyint~~ | ~~NOT NULL~~ | ~~partition key of table~~ | ~~No~~ | ~~No~~ | ~~C~~ |

### autoAcuityOverride

| **Columns of "autoAcuityOverride" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| autoAcuityOverrideID | int | IDENTITY | surrogate key for the auto acuity override item | Yes | No | C |
| patientHealthSystemStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| autoAcuityYear | smallint | NOT NULL | year when the auto acuity over ride item was incurred | No | No | T |
| autoAcuityTime24 | time(0) | NOT NULL | time in 24 hour format of when the auto acuity over ride item was incurred occurred e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| autoAcuityTime | varchar(20) | NOT NULL | time frame when the auto acuity over ride item was incurred: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| autoAcuityOffset | int | NOT NULL | number of minutes from health system admit time that the autoAcuity item was incurred | No | No | C |
| manualAcuity | varchar(50) | NULL | manual acuity over ride item e.g. “High”, “Intermediate”, “Low”, “Unknown” or NULL | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### autoAcuityQuickEntry

| **Columns of "autoAcuityQuickEntry" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| autoAcuityQuickEntryID | int | IDENTITY | surrogate key for the auto acuity quick entry item | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| autoAcuityYear | smallint | NOT NULL | year when the auto acuity quick entry item was incurred | No | No | T |
| autoAcuityTime24 | time(0) | NOT NULL | time in 24 hour format of when the auto acuity quick entry item was incurred occurred e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| autoAcuityTime | varchar(20) | NOT NULL | time frame when the auto acuity quick entry item was incurred: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| autoAcuityOffset | int | NOT NULL | number of minutes from health system admit time that the auto acuity quick entry item was incurred | No | No | C |
| vasoactiveMedsScore | smallint | NULL | acuity quick entry vasoactive meds score e.g. “1”, “2”, “3”, “4” or NULL | No | No | S |
| peepScore | smallint | NULL | auto acuity quick entry PEEP score e.g. “1”, “2” or NULL | No | No | S |
| temperatureScore | smallint | NULL | acuity quick entry temperature score e.g. “1”, “2”, “3”, “4” or NULL | No | No | S |
| gcsScore | smallint | NULL | auto acuity quick entry GCS score e.g. “15”, “9”, “5”, etc. | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### autoAcuityScore

| **Columns of "autoAcuityScore" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| autoAcuityScoreID | int | IDENTITY | surrogate key for the auto acuity score item | Yes | No | C |
| patientHealthSystemStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| autoAcuityYear | smallint | NOT NULL | year when the auto acuity score item was incurred | No | No | T |
| autoAcuityTime24 | time(0) | NOT NULL | time in 24 hour format of when the auto acuity score item was incurred occurred e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| autoAcuityTime | varchar(20) | NOT NULL | time frame when the auto acuity score item was incurred: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| autoAcuityOffset | int | NOT NULL | number of minutes from health system admit time that the auto acuity score item was incurred | No | No | C |
| score | smallint | NULL | auto acuity score e.g. “15”, “3”, “28, “0”, NULL, etc. | No | No | S |
| acuity | varchar(50) | NULL | manual acuity score item e.g. “High”, “Intermediate”, “Low”, “Unknown” or NULL | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### billing

| **Columns of "billing" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| billingID | int | IDENTITY | surrogate key for the billing item | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| billingYear | smallint | NOT NULL | year when the billing item was incurred | No | No | T |
| billingTime24 | time(0) | NOT NULL | time in 24 hour format of when the billing item was incurred occurred e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| billingTime | varchar(20) | NOT NULL | time frame when the billing item was incurred: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| billingOffset | int | NOT NULL | number of minutes from unit admit time that the billing item was incurred | No | No | C |
| billingEnteredYear | smallint | NOT NULL | year when the billing item was entered | No | No | T |
| billingEnteredTime24 | time(0) | NOT NULL | time in 24 hour format of when the billing was entered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| billingEnteredTime | varchar(20) | NOT NULL | time frame when the billing item was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| billingEnteredOffset | int | NOT NULL | number of minutes from unit admit time that the billing item was entered | No | No | C |
| billingType | varchar(50) | NULL | the type of note onto which the billing item was entered e.g.: “Daily Progress”, “Admission”, “Intubation”, etc. | No | No | S |
| billingPath | varchar(500) | NULL | the root path of the billing item e.g.: notes/Progress Notes/Billing Information/Time Devoted to Care in Minutes (this note)/Total Evaluation | No | No | S |
| billingName | varchar(400) | NULL | The picklist short name of the billing item e.g.: Total evaluation time | No | No | S |
| billingValue | varchar(1000) | NULL | the value of the billing item e.g.: 2 | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### carePlanCareProvider

| **Columns of "carePlanCareProvider" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| cplCareProvderID | int | IDENTITY | surrogate key for care plan care provider | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| careProviderSaveYear | smallint | NOT NULL | year when the care provider was entered | No | No | T |
| careProviderSaveTime24 | time(0) | NOT NULL | time in 24 hour format of when the care provider was entered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| careProviderSaveTime | varchar(20) | NOT NULL | time frame when the care provider was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| careProviderSaveOffset | int | NOT NULL | number of minutes from unit admit time that the care provider was entered | No | No | C |
| providerType | varchar(255) | NULL | the picklist type of the care provider:  Admitting  Consultant  Referring  Primary | No | No | S |
| specialty | varchar(255) | NULL | the picklist specialty of the care provider e.g.:  cardiology  unknown  obstetrics/gynecology | No | No | S |
| interventionCategory | varchar(255) | NULL | The eICU intervention category of the care provider:  I, II, III, IV, Unknown, or NULL. This data denotes the level of oversight and intervention authorized for eICU clinicians for this patient by the managing physician (MP). Category I – Ermercency interaction only, Cat II – Emergency and Best Practices intervention only, Cat III – Full interaction, Cat IV - Full interaction (redundant). | No | No | S |
| managingPhysician | varchar(50) | NULL | picklist value which denotes whether this care provider is the managing physician: Managing or Consulting | No | No | S |
| activeUponDischarge | varchar(10) | NOT NULL | denotes if this physician was active upon patient discharge: True or False | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### carePlanEOL

| **Columns of "carePlanEOL" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| cplEolID | int | IDENTITY | surrogate key for care plan EOL discussion | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| cplEolSaveYear | smallint | NOT NULL | year when the EOL discussion was entered | No | No | T |
| cplEolSaveTime24 | time(0) | NOT NULL | time in 24 hour format of when the EOL discussion was saved e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| cplEolSaveTime | varchar(20) | NOT NULL | time frame when the EOL discussion was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| cplEolSaveOffset | int | NOT NULL | number of minutes from unit admit time that the EOL discussion was entered | No | No | C |
| cplEolDiscussionYear | smallint | NULL | year when the EOL discussion occurred | No | No | T |
| cplEolDiscussionTime24 | time(0) | NULL | time in 24 hour format of when the EOL discussion occurred e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| cplEolDiscussionTime | varchar(20) | NULL | time frame when the EOL discussion occurred: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| cplEolDiscussionOffset | int | NULL | number of minutes from unit admit time that the EOL discussion occurred | No | No | C |
| activeUponDischarge | varchar(10) | NULL | denotes if the EOL discussion was active upon discharge: True or False | No | No | S |
| partitionKey | tinyint | NOT NULL | partitionKey is of carePlanEOL | No | No | C |

### carePlanGeneral

| **Columns of "carePlanGeneral" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| cplGeneralID | int | IDENTITY | surrogate key for care plan general items | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| cplItemYear | smallint | NOT NULL | year when the care plan general item was entered | No | No | T |
| cplItemTime24 | time(0) | NOT NULL | time in 24 hour format of when the careplan event was entered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| cplItemTime | varchar(20) | NOT NULL | time frame when the care plan general item was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| cplItemOffset | int | NOT NULL | number of minutes from unit admit time that the care plan general item was entered | No | No | C |
| cplGroup | varchar(255) | NOT NULL | the picklist group type in care plan where the value was selected / entered e.g.: Activity, Critical Care Discharge/Transfer Planning, Daily Goals/Safety Risks/Discharge Requirements, Safety/Restraints, Acuity, etc. | No | No | S |
| cplItemValue | varchar(1024) | NULL | the picklist value selected / entered into the care plan group e.g.: Very low mortality risk, Non-invasive ventilation, Parenteral - bolus prn | No | No | S |
| activeUponDischarge | varchar(10) | NOT NULL | denotes if the item was active upon discharge: True or False | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### carePlanGoal

| **Columns of "carePlanGoal" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| cplGoalID | int | IDENTITY | surrogate key for care plan goal | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| cplGoalYear | smallint | NOT NULL | date name when the care plan goal was entered | No | No | T |
| cplGoalTime24 | time(0) | NOT NULL | time in 24 hour format of when the care plan goal was entered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| cplGoalTime | varchar(20) | NOT NULL | time frame when the care plan goal was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| cplGoalOffset | int | NOT NULL | number of minutes from unit admit time that the care plan goal was entered | No | No | C |
| cplGoalCategory | varchar(255) | NULL | the picklist category the goal is associated with e.g.: Nutrition/Skin, Pulmonary, Cardiovascular, etc. | No | No | S |
| cplGoalValue | varchar(1000) | NULL | the string builder value of the goal e.g.: Vital signs within normal parameters, Orient patient to unit, Pulse oximetry within ordered parameters, etc. | No | No | S |
| cplGoalStatus | varchar(255) | NULL | the picklist status of the goal: Active, Resolved or Deferred | No | No | S |
| activeUponDischarge | varchar(10) | NULL | denotes whether the goal was active upon discharge: True or False | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### carePlanInfectiousDisease

| **Columns of "carePlanInfectiousDisease" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| cplInfectID | int | IDENTITY | surrogate key for care plan infectious diseases | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| cplInfectDiseaseYear | smallint | NOT NULL | year when the infectious disease was entered | No | No | T |
| cplInfectDiseaseTime24 | time(0) | NOT NULL | time in 24 hour format of when the care plan infectious disease was entered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| cplInfectDiseaseTime | datetime | NOT NULL | time frame when the infectious disease was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| cplInfectDiseaseOffset | int | NOT NULL | number of minutes from unit admit time that the infectious disease was entered | No | No | C |
| infectDiseaseSite | varchar(255) | NULL | The picklist site of the infectious disease e.g.: Intra-abdominal, Blood, Catheter related bloodstream, etc. | No | No | S |
| infectDiseaseAssessment | varchar(255) | NULL | the picklist assessment of the infectious disease: Definite infection, Probable infection or Possible infection | No | No | S |
| responseToTherapy | varchar(255) | NULL | the picklist response to the therapy: Improving, No change, Worsening, Resolved, or BLANK | No | No | S |
| treatment | varchar(255) | NULL | the picklist treatment for the infectious disease: Prophylactic, Empiric, Directed, or BLANK | No | No | S |
| activeUponDischarge | varchar(10) | NOT NULL | denotes whether the infectious disease was active upon discharge: True or False | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### cdcNDI

| **Columns of "cdcNDI" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| cdcNDIID | int | IDENTITY | surrogate key for the CDC NDI record | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| expirationYear | smallint | NOT NULL | Year when the patient expired | No | No | T |
| expirationOffset | int | NOT NULL | number of minutes from unit admit time that the patient expired | No | No | C |
| matchRule | tinyint | NOT NULL | matching criteria rule used key e.g. “1”, “0”, “99”, etc. | No | No | C |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### cdcNDICause

| **Columns of "cdccause" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| cdcNDICauseID | int | IDENTITY | surrogate key for the CDC NDI cause record | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| conditionSeqNum | tinyint | NOT NULL | sequence of the condition i.e. sequence number from 1 to 20 | No | No | T |
| ICDversion | tinyint | NOT NULL | ICD version number e.g. 9 or 10 | No | No | T |
| ICDcode | varchar(10) | NOT NULL | ICD-9 or ICD-10 code | No | No | T |
| ~~partitionKey~~ | ~~tinyint~~ | ~~NOT NULL~~ | ~~partition key of table~~ | ~~No~~ | ~~No~~ | ~~C~~ |

### diagnosis

| **Columns of "diagnosis" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| diagnosisID | int | IDENTITY | surrogate key for the diagnosis | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| diagnosisYear | smallint | NOT NULL | year when the diagnosis was entered | No | No | T |
| diagnosisTime24 | time(0) | NOT NULL | time in 24 hour format of when the diagnosis occurred e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| diagnosisTime | varchar(20) | NOT NULL | time frame when the diagnosis was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| diagnosisOffset | int | NOT NULL | number of minutes from unit admit time that the diagnosis was entered | No | No | C |
| diagnosisString | varchar(200) | NOT NULL | the full pathstring of the diagnosis selected in eCareManager, the sections of the diagnosis will be separated by a | symbol e.g.: pulmonary|disorders of the airways|COPD, pulmonary|respiratory failure|hypoxemia, cardiovascular|vascular disorders|DVT, etc. | No | No | S |
| activeUponDischarge | varchar(10) | NULL | denotes whether the diagnosis was active upon discharge from the unit: True or False | No | No | S |
| ICD9Code | varchar(100) | ~~NOT~~ NULL | ICD-9 code for the diagnosis e.g.: 518.81, 537.9, 491.20, etc. | No | No | S |
| ICD10Code | varchar(100) | NULL | ICD-10 code for the diagnosis e.g.: K55.9, I97.89, R65.21, etc. | No | No | S |
| diagnosisPriority | varchar(10) | NOT NULL | picklist value which denotes whether the diagnosis was marked as: Primary, Major, or Other | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### infusionDrug

| **Columns of "infusionDrug" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| infusionDrugID | int | IDENTITY | surrogate key for infusion drugs | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| infusionYear | smallint | NOT NULL | year of the infusion drug column date | No | No | T |
| infusionTime24 | time(0) | NOT NULL | time in 24 hour format of when the infusion drug was entered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| infusionTime | varchar(20) | NOT NULL | time frame of the infusion drug column date: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| infusionOffset | int | NOT NULL | number of minutes from unit admit time that infusion drug column was entered | No | No | C |
| drugName | varchar(255) | NOT NULL | picklist name of the infusion drug e.g.: Heparin (units/hr), Vasopressin (units/min), Propofol (mcg/kg/min), etc. | No | No | S |
| drugRate | varchar(255) | NULL | rate of the infusion drug e.g.: 1300, .7, 0.49, etc. | No | No | S |
| infusionRate | varchar(255) | NULL | infusion rate of the drug e.g.: 13, 1.25, 25000, etc. | No | No | S |
| drugAmount | varchar(255) | NULL | the amount of drug given e.g.: 250, 100, 50, etc. | No | No | S |
| volumeOfFluid | varchar(255) | NULL | volume of fluid for the infusion e.g.: 250, 100, 50, etc. | No | No | S |
| patientWeight | varchar(255) | NULL | the patient weight recorded during the drug infusion in kilograms e.g.: 87.9, 76.3, 65.8, etc. | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### intakeOutput

| **Columns of "intakeOutput" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| intakeOutputID | int | IDENTITY | surrogate key for the intake output data | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| intakeOutputYear | smallint | NOT NULL | the observation year for the I and O value | No | No | T |
| intakeOutputTime24 | time(0) | NOT NULL | time in 24 hour format of the intake output column e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| intakeOutputTime | varchar(20) | NOT NULL | observation time frame for the I and O value: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| intakeOutputOffset | int | NOT NULL | number of minutes from unit admit time that the I and O value was observed | No | No | C |
| intakeTotal | decimal(12,4) | NULL | total intake value e.g.: 150.0000, 326.0000, 142.0000, etc. | No | No | S |
| outputTotal | decimal(12,4) | NULL | total output value e.g.: 230.0000, 350.0000, 150.0000, etc. | No | No | S |
| dialysisTotal | decimal(12,4) | NULL | total dialysis value e.g.: -96.0000, -2300.0000, 0.0000, etc. | No | No | S |
| netTotal | decimal(12,4) | NULL | calculated net value of: intakeTotal – outputTotal + dialysisTotal | No | No | S |
| intakeOutputEntryYear | smallint | NOT NULL | year when the I and O value was entered | No | No | T |
| intakeOutputEntryTime24 | time(0) | NOT NULL | time in 24 hour format of when the intake output column was entered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| intakeOutputEntryTime | varchar(20) | NOT NULL | time frame when the I and O value was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| intakeOutputEntryOffset | int | NOT NULL | number of minutes from unit admit time that the I and O value was entered | No | No | C |
| cellPath | varchar(500) | NOT NULL | the root path of info from the label in I and O e.g.: flowsheet|Flowsheet Cell Labels|I&O|Intake (ml)|Blood Products (ml)|pRBCs, flowsheet|Flowsheet Cell Labels|I&O|Intake (ml)|Nutrition (ml)|Parenteral TNA, flowsheet|Flowsheet Cell Labels|I&O|Output (ml)|CSF, etc. | No | No | S |
| cellLabel | varchar(255) | NOT NULL | The predefined row label text from I and O e.g.: Enteral flush/meds panda, D5 0.45 NS w/20 mEq KCL 1000 ml, Continuous infusion meds, etc. | No | No | S |
| cellValueNumeric | decimal(12,4) | NOT NULL | the value of the I and O row e.g.: 100.0000, 60.9000, 10.0000, etc. | No | No | S |
| cellValueText | varchar(255) | NOT NULL | text conversion of the numeric value of the I and O row e.g.: 100, 360, 50 | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### lab

| **Columns of "lab" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| labID | int | IDENTITY | surrogate ID for the labs data | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| labResultYear | smallint | NOT NULL | year when the lab value was entered | No | No | T |
| labResultTime24 | time(0) | NOT NULL | time in 24 hour format of when the lab was drawn e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| labResultTime | varchar(20) | NOT NULL | time frame when the lab value was drawn: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| labResultOffset | int | NOT NULL | number of minutes from unit admit time that the lab value was drawn | No | No | C |
| labTypeID | tinyint | NOT NULL | the type of lab that is represented in the values, 1 for chemistry, 2 for drug level, 3 for hemo, 4 for misc, 5 for non-mapped, 6 for sensitive, 7 for ABG lab | No | No | S |
| labName | varchar(255) | NULL | the picklist name of the lab e.g.: CPK, troponin - I, RBC, HCO3, Total CO2, etc. This is hospital specific. | No | No | S |
| labResult | decimal(11,4) | NULL | the numeric value of the lab e.g.: 7.3230,, 58.0000, 24.8000 | No | No | S |
| labResultText | varchar(255) | NULL | the text of the lab value e.g.: 7.257, 58.0  24.8 | No | No | S |
| labMeasureNameSystem | varchar(255) | NULL | the measurement name of the lab e.g.: mm Hg, mmol/L, mEq/L, etc. | No | No | S |
| labMeasureNameInterface | varchar(255) | NULL | the measurement name of the lab from interfaces e.g.: mm Hg, mmol/L, mEq/L, etc. | No | No | S |
| labResultRevisedYear | smallint | NOT NULL | year when the revised lab value was entered | No | No | T |
| labResultRevisedTime24 | time(0) | NOT NULL | time in 24 hour format of when the lab was revised e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| labResultRevisedTime | varchar(20) | NOT NULL | time frame when the revised lab value was entered | No | No | T |
| labResultRevisedOffset | int | NOT NULL | number of minutes from unit admit time that the revised lab value was entered | No | No | C |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### lineTubeDrain

| **Columns of "lineTubeDrain" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| lineTubeDrainID | int | IDENTITY | surrogate key for the line | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| lineLabel | varchar(1000) | NULL | picklist name of label e.g.: 1, 2, 3, A, B | No | No | S |
| changeOverWire | varchar(40) | NULL | picklist type of line changed to from previous type of line | No | No | S |
| lineLocation | varchar(40) | NOT NULL | picklist location of line, tube or drain | No | No | S |
| size | varchar(5) | NULL | size of catheter | No | No | S |
| unitOfMeasure | varchar(1000) | NULL | picklist unit of measure e.g.: French, gauge, millimeters (mm), other | No | No | S |
| catheterTip | varchar(3) | NOT NULL | Specimen sent for culture catheter tip Yes or No | No | No | S |
| fluid | varchar(3) | NOT NULL | Specimen sent for culture fluid Yes or No | No | No | S |
|  |  |  |  |  |  |  |
| insertYear | smallint | NOT NULL | year when the line was inserted | No | No | T |
| insertTime24 | time(0) | NOT NULL | time in 24 hour format of when the line was inserted e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| insertTime | varchar(20) | NOT NULL | time frame when the line was inserted: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| insertOffset | int | NOT NULL | number of minutes from unit admit time that the line was inserted | No | No | C |
| changeYear | smallint | NULL | year when the line was changed | No | No | T |
| changeTime24 | time(0) | NULL | time in 24 hour format of when the line was changed e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| changeTime | varchar(20) | NULL | time frame when the line was changed: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| changeOffset | int | NULL | number of minutes from unit admit time that the line was changed | No | No | C |
| removeYear | smallint | NULL | year when the line was removed | No | No | T |
| removeTime24 | time(0) | NULL | time in 24 hour format of when the line was removed e.g.: “12:45”, “15:30”, “3:45”" | No | No | T |
| removeTime | varchar(20) | NULL | time frame when the line was removed: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| removeOffset | int | NULL | number of minutes from unit admit time that the line was removed | No | No | C |
| updateYear | smallint | NULL | year when line was updated | No | No | T |
| updateTime24 | time(0) | NULL | time in 24 hour format of when the line was updated e.g.: “12:45”, “15:30”, “3:45”" | No | No | T |
| updateTime | varchar(20) | NULL | time frame when the line was updated: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| updateOffset | int | NULL | number of minutes from unit admit time that the line was updated | No | No | C |
| catheterType | varchar(255) | NOT NULL | picklist type of catheter line e.g.: Arterial, Pulmonary artery, Peripheral IV, etc. | No | No | S |
| catheterLocation | varchar(255) | NULL | picklist location of catheter line e.g.: right radial artery, left internal jugular vein, right lower extremity, etc. | No | No | S |
| ltdSource | varchar(1000) | NOT NULL | application source data entered for line, tube or drain e.g.: Notes, LTD | No | No | S |
| changeType | varchar(1000) | NOT NULL | picklist catheter transaction type e.g.: Add, Change, Delete, Discontinued, Reinstate | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### medication

| **Columns of "medication" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| medicationID | int | IDENTITY | surrogate key for drugs | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| drugOrderYear | smallint | NOT NULL | year when the drug was ordered | No | No | T |
| drugOrderTime24 | time(0) | NOT NULL | time in 24 hour format of when the drug was ordered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| drugOrderTime | varchar(20) | NOT NULL | time frame when the drug was ordered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| drugOrderOffset | int | NOT NULL | number of minutes from unit admit time that the drug was ordered | No | No | C |
| drugStartYear | smallint | NOT NULL | year when the drug was started | No | No | T |
| drugStartTime24 | time(0) | NOT NULL | time in 24 hour format of when the drug started e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| drugStartTime | varchar(20) | NOT NULL | time frame when the drug was started: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| drugStartOffset | int | NOT NULL | number of minutes from unit admit time that the drug was started | No | No | C |
| drugIVAdmixture | varchar(3) | NOT NULL | contains “Yes” if an IV admixture, “No” otherwise | No | No | S |
| drugOrderCancelled | varchar(3) | NOT NULL | contains “Yes” if drug order was cancelled, “No” otherwise | No | No | S |
| drugName | varchar(255) | NOT NULL | name of selected drug e.g.: SODIUM CHLORIDE 0.9%, ONDANSETRON HCL, MORPHINE SULFATE, etc. | No | No | S |
| drugHiclSeqno | INT | NULL | HICL for the drug e.g.: 8255, 6055, 1694, etc. | No | No | S |
| dosage | varchar(400) | NOT NULL | the dosage of the drug e.g.: 500 ml, 1 mcg/kg/min, 2.4 units/hour, etc. | No | No | S |
| routeAdmin | varchar(100) | NOT NULL | the picklist route of administration for the drug e.g.: IV (intravenous), IV - continuous infusion (intravenous), PO (oral), etc. | No | No | S |
| frequency | varchar(255) | NOT NULL | the picklist frequency with which the drug is taken e.g.: Every 6 hour(s), twice a day, four times per day, etc. | No | No | S |
| loadingDose | varchar(100) | NOT NULL | the loading dose of the drug e.g.: 0 mg, 2 mg, 2 units, etc. | No | No | S |
| PRN | varchar(25) | NOT NULL | denotes whether the medication was PRN or not: Yes, No, or BLANK | No | No | S |
| drugStopYear | smallint | NULL | year when the drug was stopped | No | No | T |
| drugStopTime24 | time(0) | NULL | time in 24 hour format of when the drug was stopped e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| drugStopTime | varchar(20) | NULL | time frame when the drug was stopped: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| drugStopOffset | int | NULL | number of minutes from unit admit time that the drug was stopped | No | No | C |
| GTC | int | NULL | The NDDF GTC code associated with the drug | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### microLab

| **Columns of "microLab" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| microLabID | int | IDENTITY | surrogate key for the micro lab | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| cultureTakenYear | smallint | NOT NULL | year when the culture was taken | No | No | T |
| cultureTakenTime24 | time(0) | NOT NULL | time in 24 hour format of when the cluture was taken e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| cultureTakenTime | varchar(20) | NOT NULL | time frame when the culture was taken: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| cultureTakenOffset | int | NOT NULL | number of minutes from unit admit time that the culture was taken | No | No | C |
| cultureSite | varchar(255) | NOT NULL | picklist site name from where the culture was taken e.g.: Wound, Drainage Fluid, Sputum, Expectorated, Nasopharynx, etc. | No | No | S |
| organism | varchar(255) | NOT NULL | picklist organism found e.g.: Staphylococcus aureus, Pseudomonas aeruginosa, no growth, etc. | No | No | S |
| antibiotic | varchar(255) | NULL | picklist antibiotic used e.g.: ceftazidime, aztreonam, other, etc. | No | No | S |
| sensitivityLevel | varchar(255) | NULL | picklist sensitivity level of antibiotic: Intermediate, Resistant, or Sensitive | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### note

| **Columns of "note" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| noteID | int | IDENTITY | surrogate key for the note item | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| noteYear | smallint | NOT NULL | note item year derived from note’s date of service | No | No | T |
| noteTime24 | time(0) | NOT NULL | time in 24 hour format derived from the note’s date of service e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| noteTime | varchar(20) | NOT NULL | note item time frame derived from the note’s date of service: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| noteOffset | int | NOT NULL | number of minutes from unit admit time for the note item, derived from the note’s date of service | No | No | C |
| noteEnteredYear | smallint | NOT NULL | year when the note item was entered | No | No | T |
| noteEnteredTime24 | time(0) | NOT NULL | time in 24 hour format of when the note was entered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| noteEnteredTime | varchar(20) | NOT NULL | time frame when the note item was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| noteEnteredOffset | int | NOT NULL | number of minutes from unit admit time that the note item was entered | No | No | C |
| noteType | varchar(50) | NULL | type of note e.g.: Admission, Comprehensive Progress, Brief Progress, etc. | No | No | S |
| notePath | varchar(255) | NOT NULL | the root path of the note item e.g.: notes/Progress Notes/Assessment and Plan/Organ System dx(s) and rx(s)/Gastrointestinal/Dx/Dx, notes/Progress Notes/Assessment and Plan/Organ System dx(s) and rx(s)/Gastrointestinal/Dx/Dx, etc. | No | No | S |
| noteValue | varchar(150) | NULL | the picklist value name of the note item e.g.: HR Highest, Dx, Verified procedure, etc. | No | No | S |
| noteText | varchar(255) | NULL | the picklist value text of the note item e.g.: ABDOMINAL PAIN / TENDERNESS, nausea-with vomiting, +1358, respiratory arrest, etc. | No | No | S |
| dateofServiceYear | smallint | NOT NULL | Date of service year for the note | No | No | T |
| dateofServiceTime24 | time | NOT NULL | Tiem in 24 our format of the note date of service.: e.g. “12:45”, “15:30”, “3:45” | No | No | T |
| dateofServiceTime | varchar(20) | NOT NULL | Date of service time frame: ‘midnight’ ‘morning’, midday’, ‘noon’, ‘evening’, or ‘night’ | No | No | T |
| dateofServiceOffset | int | NOT NULL | Number of minutes from unit admit time for the date of service for the note | No | No | C |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### nurseAssessment

| **Columns of "nurseAssessment" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| nurseAssessID | int | IDENTITY | surrogate key for the nurse assessment | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| nurseAssessYear | smallint | NOT NULL | year of the nurse assessment column date | No | No | T |
| nurseAssessTime24 | time(0) | NOT NULL | time in 24 hour format of the assessment column e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| nurseAssessTime | varchar(20) | NOT NULL | time frame of the nurse assessment column date: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| nurseAssessOffset | int | NOT NULL | number of minutes from unit admit time that nurse assessment column | No | No | C |
| nurseAssessEntryYear | smallint | NOT NULL | year when the nurse assessment column date was entered | No | No | T |
| nurseAssessEntryTime24 | time(0) | NOT NULL | time in 24 hour format of when the assessment column was entered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| nurseAssessEntryTime | varchar(20) | NOT NULL | time frame of when the nurse assessment item was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| nurseAssessEntryOffset | int | NOT NULL | number of minutes from unit admit time that nurse assessment column was entered | No | No | C |
| cellAttributePath | varchar(255) | NOT NULL | the full path string of the nurse assessment entry selected in eCareManager, the sections of the assessment will be separated by a | symbol e.g.: flowsheet|Flowsheet Cell Labels|Nursing Assessment|Scores|Braden Scale|Activity | No | No | S |
| cellLabel | varchar(255) | NOT NULL | label of the selected nurse assessment entry | No | No | S |
| cellAttribute | varchar(255) | NOT NULL | attribute for the nurse assessment entry selected in eCareManager | No | No | S |
| cellAttributeValue | varchar(7500) | NULL | value for the nurse assessment attribute selected for the nurse assessment entry in eCareManager | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### nurseCare

| **Columns of "nurseCare" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| nurseCareID | int | IDENTITY | surrogate key for the nursing care | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| nurseCareYear | smallint | NOT NULL | year of the nursing care column date | No | No | T |
| nurseCareTime24 | time(0) | NOT NULL | time in 24 hour format of the assessment column e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| nurseCareTime | varchar(20) | NOT NULL | time frame of the nursing care column date: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| nurseCareOffset | int | NOT NULL | number of minutes from unit admit time that nursing care column | No | No | C |
| nurseCareEntryYear | smallint | NOT NULL | year when the nursing care column date was entered | No | No | T |
| nurseCareEntryTime24 | time(0) | NOT NULL | time in 24 hour format of when the nursing care column was entered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| nurseCareEntryTime | varchar(20) | NOT NULL | time frame of when the nursing care item was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| nurseCareEntryOffset | int | NOT NULL | number of minutes from unit admit time that nursing care column was entered | No | No | C |
| cellAttributePath | varchar(255) | NOT NULL | the full path string of the nursing care entry selected in eCareManager, the sections of the assessment will be separated by a | symbol e.g.: flowsheet|Flowsheet Cell Labels|Nursing Assessment|Scores|Braden Scale|Activity | No | No | S |
| cellLabel | varchar(255) | NOT NULL | label of the selected nursing care entry | No | No | S |
| cellAttribute | varchar(255) | NOT NULL | attribute for the nursing care entry selected in eCareManager | No | No | S |
| cellAttributeValue | varchar(7500) | NULL | value for the nursing care attribute selected for the nursing care entry in eCareManager | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### nursingCharting

| **Columns of "nurseCharting" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| nursingChartID | int | IDENTITY | surrogate key for the nurse charting | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| nursingChartYear | smallint | NOT NULL | year of the nursing chart column date | No | No | T |
| nursingChartTime24 | time(0) | NOT NULL | time in 24 hour format of the chart column e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| nursingChartTime | varchar(20) | NOT NULL | time frame of the nursing chart column date: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| nursingChartOffset | int | NOT NULL | number of minutes from unit admit time that nursing chart column | No | No | C |
| nursingChartEntryYear | smallint | NOT NULL | year when the nursing chart column date was entered | No | No | T |
| nursingChartEntryTime24 | time(0) | NOT NULL | time in 24 hour format of when the chart column was entered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| nursingChartEntryTime | varchar(20) | NOT NULL | time frame of when the nursing chart item was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| nursingChartEntryOffset | int | NOT NULL | number of minutes from unit admit time that nursing chart column was entered | No | No | C |
| nursingChartCellTypeCat | varchar(255) | NOT NULL | picklist nursing chart category type e.g.: Vital Signs, Scores, Other Vital Signs and Infusions, etc. | No | No | S |
| nursingChartCellTypeValLabel | varchar(255) | NOT NULL | picklist nursing chart cell type value label e.g.: O2 Saturation, Glasgow coma score, Respiratory Rate, etc. | No | No | S |
| nursingChartCellTypeValName | varchar(255) | NOT NULL | picklist nursing chart cell type value name e.g.: Value, GCS Eyes, Non-Invasive BP Systolic, etc. | No | No | S |
| nursingChartValue | varchar(255) | NULL | The text that was entered manually or via a interface for the given Cell Type Val Lable e.g.: 100, 4 units, 35%, etc. | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### pastHistory

| **Columns of "pastHistory" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| pastHistoryID | int | IDENTITY | surrogate key for the past history item | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| pastHistoryYear | smallint | NOT NULL | year for the past history item | No | No | T |
| pastHistoryTime24 | time(0) | NOT NULL | time in 24 hour format of the past history event e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| pastHistoryTime | varchar(20) | NOT NULL | time frame for the past history item: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| pastHistoryOffset | int | NOT NULL | number of minutes from unit admit time for the past history item | No | No | C |
| pastHistoryEnteredYear | smallint | NOT NULL | year when the past history item was entered | No | No | T |
| pastHistoryEnteredTime24 | time(0) | NOT NULL | time in 24 hour format of when the past history event was entered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| pastHistoryEnteredTime | varchar(20) | NOT NULL | time frame when the past history item was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| pastHistoryEnteredOffset | int | NOT NULL | number of minutes from unit admit time that the past history item was entered | No | No | C |
| pastHistoryNoteType | varchar(20) | NULL | note type for the past history item e.g.: Admission, Initial Consultation/Other, Re-Admission, etc. | No | No | S |
| pastHistoryPath | varchar(255) | NOT NULL | the root path of the past history item e.g.: notes/Progress Notes/Past History/Organ Systems/Hematology/Oncology (A)/Cancer Therapy/Chemotherapy/Cis-platinum, etc. | No | No | S |
| pastHistoryValue | varchar(100) | NULL | Structured picklist of available past history items e.g.: Performed, hypercoagulable condition, COPD - no limitations, etc. | No | No | S |
| pastHistoryValueText | varchar(255) | NULL | the picklist value of the past history item e.g.: COPD - Moderate, CHF, Medication dependent, etc. | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### patient

| **Columns of "patient" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| patientUnitStayID | int | NOT NULL | surrogate key for the patient | Yes | No | C |
| patientHealthSystemStayID | int | NOT NULL | surrogate key for the patient health system stay | No | No | C |
| patientHistoryID | int | NULL | surrogate key for the patient if they were found in multiple hospitalizations | No | No | C |
| gender | varchar(25) | NULL | gender of the patient: Male, Female, Unknown,  Other, NULL | No | No | S |
| age | varchar(10) | NULL | age of the patient in full years. If the patient is over 89 years old specify "> 89" e.g.: 79, 36, 52, “> 89”, etc. | No | No | T |
| ethnicity | varchar(50) | NULL | picklist ethnicity of the patient: Asian, Caucasian, African American, Native American, Hispanic, Other/Unknown, NULL | No | No | S |
| hospitalID | int | NOT NULL | surrogate key for the hospital associated with the patient unit stay | No | No | C |
| wardID | int | NOT NULL | surrogate key for the ward associated with the patient unit stay | No | No | C |
| apacheAdmissionDx | varchar(1000) | NULL | Full path string of admission diagnosis for patients unit stay e.g.: Pulmonary valve surgery, Chest pain, unknown origin, Restrictive lung disease (i.e., Sarcoidosis, pulmonary fibrosis), etc. | No | No | S |
| admissionHeight | decimal(10,2) | NULL | admission height of the patient in cm e.g.: 160.0000, 182.9000, 175.3000, etc. | No | No | S |
| hospitalAdmitYear | smallint | NOT NULL | year of the hospital admit date | No | No | T |
| hospitalAdmitTime24 | time(0) | NOT NULL | time in 24 hour format of the hospital admit e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| hospitalAdmitTime | varchar(20) | NOT NULL | time frame of the hospital admit date: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| hospitalAdmitOffset | int | NOT NULL | number of minutes from unit admit time that the patient was admitted to the hospital | No | No | C |
| hospitalAdmitSource | varchar(30) | NULL | location from where the patient was admitted to the hospital e.g.: Direct Admit, Floor, Chest Pain Center. etc. | No | No | S |
| hospitalDischargeYear | smallint | NOT NULL | year of the hospital discharge date | No | No | T |
| hospitalDischargeTime24 | time(0) | NOT NULL | time in 24 hour format of when the hospital discharge event occurred e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| hospitalDischargeTime | varchar(20) | NOT NULL | time frame of the hospital discharge date: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| hospitalDischargeOffset | int | NOT NULL | number of minutes from unit admit time that the patient was discharged from the hospital | No | No | C |
| hospitalDischargeLocation | varchar(100) | NULL | Structured list of location where the patient was discharged to from the hospital e.g.: Home, Nursing Home, Death, etc. | No | No | S |
| hospitalDischargeStatus | varchar(10) | NULL | specifies patient’s condition upon leaving the hospital: Alive, Expired, or NULL | No | No | S |
| unitType | varchar(50) | NULL | the picklist unit type of the unit e.g.: MICU,Cardiovascular ICU,SDU/Step down,VICU,Neuro ICU,CCU,Virtual ICU,SICU,ICU,CCU-CTICU,Mobile ICU,CTICU,CSICU,Test ICU,Vent ICU,Burn-Trauma ICU | No | No | S |
| unitAdmitYear | smallint | NOT NULL | year of the unit admit date | No | No | T |
| unitAdmitTime24 | time(0) | NOT NULL | time in 24 hour format of when the unit admit event occurred e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| unitAdmitTime | varchar(20) | NOT NULL | time frame of the unit admit date: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| unitAdmitSource | varchar(100) | NULL | picklist location from where the patient was admitted e.g.: Emergency Room, Recovery Room, Direct Admit, etc. | No | No | S |
| unitVisitNumber | int | NOT NULL | identifies the visit number of the patient, i.e. if the patient's hospital stay has multiple unit stays | No | No | C |
| unitStayType | varchar(15) | NULL | patient's unit stay type: stepdown/other, readmit for undo, admit, pre-admit, transfer, readmit | No | No | S |
| admissionWeight | decimal(10,2) | NULL | admission weight of the patient in kilograms e.g.: 69.7000, 70.9000, 173.0000, etc. | No | No | S |
| dischargeWeight | decimal(10,2) | NULL | patient weight at time of unit discharge in kilograms e.g.: 69.7000, 70.9000, 173.0000, etc. | No | No | S |
| unitDischargeYear | smallint | NOT NULL | year of the unit discharge date | No | No | T |
| unitDischargeTime24 | time(0) | NOT NULL | time in 24 hour format of when the unit discharge event occurred e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| unitDischargeTime | varchar(20) | NOT NULL | time frame of the unit discharge date: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| unitDischargeOffset | int | NOT NULL | number of minutes from unit admit time that the patient was discharged from the unit | No | No | C |
| unitDischargeLocation | varchar(100) | NULL | Structured list of locations where the patient was discharged to from the unit e.g.: Other ICU (CABG), Other Hospital, Telemetry, Other Internal, Other ICU, Floor, Step-Down Unit (SDU), etc. | No | No | S |
| unitDischargeStatus | varchar(10) | NULL | specifies patient’s condition upon leaving the unit: Alive, Expired, or NULL | No | No | S |
| expirationYear | smallint | NULL | year that the patient expired | No | No | T |
| expirationTime24 | time(0) | NULL | time in 24 hour format of when the the patient expired e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| expirationTime | varchar(20) | NULL | time frame of the patient expiration date: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| expirationOffset | int | NULL | number of minutes from unit admit time that the patient expired; includes ICU, hospital, and out of hospital deaths | No | No | C |
| auditEtlRunID | uniqueidentifier | NULL | Internal ID of the ETL run that imported the patient’s data i.e. 32 character GUID. | No | No | C |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### patientProvider

| **Columns of "patientProvider" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| patientProviderID | int | IDENTITY | surrogate key for the patient’s provider item | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| provider Type | varchar(50) | NOT NULL | type of provider (e.g. Admitting, Primary, Consulting) | No | No | T |
| providerSpecialty | varchar(50) | NULL | provider’s specialty (e.g. allergy/immunology, oncology, neurology, etc.) | No | No | T |
| providerCategory | varchar(50) | NULL | provider category (e.g. I, II, III) | No | No | T |
| ~~partitionKey~~ | ~~tinyint~~ | ~~NOT NULL~~ | ~~partition key of table~~ | ~~No~~ | ~~No~~ | ~~C~~ |

### patientRegistry

| **Columns of "patientRegistry" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| patientRegistryID | int | IDENTITY | surrogate key for the patient registry item | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| patientRegistryStampYear | smallint | NOT NULL | year when patient registry item was stored | No | No | T |
| patientRegistryStampTime24 | time(0) | NOT NULL | time in 24 hour format of when the patient registry item was stored e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| patientRegistryStampTime | varchar(20) | NOT NULL | time frame when the the patient registry item was stored: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| patientRegistryStampOffset | int | NOT NULL | number of minutes from unit admit time that the the patient registry item was stored | No | No | C |
| patientRegistryGCSmotor | tinyint | NOT NULL | GCS motor score | No | No |  |
| patientRegistryGCSverbal | tinyint | NOT NULL | GCS verbal score | No | No |  |
| patientRegistryGCSeyes | tinyint | NOT NULL | GCS eye score | No | No |  |
| patientRegistryGCStotal | int | NULL | GCS total score | No | No |  |
| patientRegistryGCSunableToScale | bit | NOT NULL | Unable to score flag | No | No |  |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### physicalExam

| **Columns of "physicalExam" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| physicalExamID | int | IDENTITY | surrogate key for the physical exam item | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| physicalExamYear | smallint | NOT NULL | year when the physical exam item was entered | No | No | T |
| physicalExamTime24 | time(0) | NOT NULL | time in 24 hour format of when the physical exam event occurred e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| physicalExamTime | varchar(20) | NOT NULL | time frame when the physical exam item was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| physicalExamOffset | int | NOT NULL | number of minutes from unit admit time that the physical exam item was entered | No | No | C |
| physicalExamPath | varchar(255) | NOT NULL | the root path of the physical exam item e.g.: notes/Progress Notes/Physical Exam/Physical Exam/Constitutional/Vital Sign and Physiological Data/Resp Rate/Resp Current, notes/Progress Notes/Physical Exam/Physical Exam/Neurologic/GCS/Verbal Score/5, etc. | No | No | S |
| physicalExamValue | varchar(100) | NULL | Structured picklist of available of physical exam items: O2 Sat% Highest, withdraws to pain, HR Current, etc. | No | No | S |
| physicalExamText | varchar(500) | NOT NULL | The string builder value of the physical exam item e.g.: manual entry, 85, no wheezing, etc. | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### programForm

| **Columns of "programForm" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| programFormID | int | IDENTITY | surrogate key for the program form item | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| pfName | varchar(200) | NOT NULL | Name of program form e.g.: “Sepsis Bundle” | No | No | S |
| pfDateCreatedYear | smallint | NOT NULL | year when the program form was created | No | No | T |
| pfDateCreatedTime24 | time(0) | NOT NULL | time in 24 hour format of when the program form was created e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| pfDateCreatedTime | varchar(20) | NOT NULL | time frame when the program form was created: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| pfDateCreatedOffset | int | NOT NULL | number of minutes from unit admit time that the program form was created | No | No | C |
| pfDateModifiedYear | smallint | NOT NULL | year when the program form was modified | No | No | T |
| pfDateModifiedTime24 | time(0) | NOT NULL | time in 24 hour format of when the program form was modified e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| pfDateModifiedTime | varchar(20) | NOT NULL | time frame when the program form was modified: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| pfDateModifiedOffset | int | NOT NULL | number of minutes from unit admit time that the program form was modified | No | No | C |
| pfDateCompleteYear | smallint | NULL | year when the program form was completed | No | No | T |
| pfDateCompleteTime24 | time(0) | NULL | time in 24 hour format of when the program form was completed e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| pfDateCompleteTime | varchar(20) | NULL | time frame when the program form was completed: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| pfDateCompleteOffset | int | NULL | number of minutes from unit admit time that the program form was completed | No | No | C |
|  |  |  |  |  |  |  |
| pfDataPointDefName | varchar(200) | NOT NULL | Program form data point definition name e.g.: “Code Status and Care Limitations” | No | No | S |
| pfDataPointValueType | varchar(30) | NOT NULL | Datatype of program data point value e.g. “Boolean”, “Date”, “Lookup”, “Number” | No | No | S |
| pfDataPointValue | varchar(max) | NULL | Value of program data point e.g.: “NULL”, “1”, “80.1” | No | No | S |
| pfDataPointYear | smallint | NOT NULL | year when the program data point item was entered if datetime | No | No | T |
| pfDataPointTime24 | time(0) | NOT NULL | time in 24 hour format of when the program data point event occurred if datetime e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| pfDataPointTime | varchar(20) | NOT NULL | time frame when the program data point item was entered idf datetime: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| pfDataPointOffset | int | NOT NULL | number of minutes from unit admit time that the program data point item was entered if datetime | No | No | C |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### protocol

| **Columns of "protocol" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| protocolID | int | IDENTITY | surrogate key for the protocol item | Yes | No | C |
| patientHealthSystemStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| protocolName | varchar(50) | NOT NULL | name of the protocol | No | No | S |
| protocolStartYear | smallint | NULL | year when the protocol item was started | No | No | T |
| protocolStartTime24 | time(0) | NULL | time in 24 hour format of when the protocol event started e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| protocolStartTime | varchar(20) | NULL | time frame when the protocol item started: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| protocolStartOffset | int | NULL | number of minutes from unit admit time that the protocol item started | No | No | C |
| protocolEndYear | smallint | NULL | year when the protocol item ended | No | No | T |
| protocolEndTime24 | time(0) | NULL | time in 24 hour format of when the protocol event ended e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| protocolEndTime | varchar(20) | NULL | time frame when the protocol item ended: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| protocolEndOffset | int | NULL | number of minutes from unit admit time that the protocol item ended | No | No | C |
| protocolChangeYear | smallint | NULL | year when the protocol item changed | No | No | T |
| protocolChangeTime24 | time(0) | NULL | time in 24 hour format of when the protocol event changed e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| protocolChangeTime | varchar(20) | NULL | time frame when the protocol item changed: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| protocolChangeOffset | int | NULL | number of minutes from unit admit time that the protocol item chnaged | No | No | C |
| protocolStampYear | smallint | NOT NULL | year when the protocol item was stored | No | No | T |
| protocolStampTime24 | time(0) | NOT NULL | time in 24 hour format of when the protocol event was stored e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| protocolStampTime | varchar(20) | NOT NULL | time frame when the protocol item was stored: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| protocolStampOffset | int | NOT NULL | number of minutes from unit admit time that the protocol item was stored | No | No | C |
| episodeDeleted | bit | NOT NULL | was episode deleted; 0 not deleted, 1 deleted | No | No | S |
| episodeActive | bit | NOT NULL | is episode active; 0 active, 1 not active | No | No | S |
| dataGrouping | varchar(50) | NOT NULL | UI source of protocol e.g.: “CT Completed Screen”, “Initiate Episode Screen”, “tPA (IV) Dose Screen” | No | No | S |
| dataDefName | varchar(200) | NOT NULL | Descripotion of protocol value e.g.”CT Completed”, “Medical/Surgical History: Diabetes”, “tPA Dose Weight (kg)” | No | No | S |
| protocolValueType | varchar(30) | NOT NULL | Datatype of protocol value e.g.: “datetime”, “bit”, “decimal”, “lookup”, “int” (“varchar” excluded due to possibility of PHI data) | No | No | S |
| protocolValue | varchar(max) | NULL | Value of the protocol e.g.: “NULL”, “False”, “80.1” | No | No | S |
| protocolValueYear | smallint | NOT NULL | year of the protocol item when value type is datetime | No | No | T |
| protocolValueTime24 | time(0) | NOT NULL | time in 24 hour format when value type is datetime e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| protocolValueTime | varchar(20) | NOT NULL | time frame when value type is datetime: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| protocolValueOffset | int | NOT NULL | number of minutes from unit admit time when value type is datetime | No | No | C |
| protocolValueDeleted | bit | NOT NULL | was value deleted; 0 not deleted, 1 deleted | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### respiratoryCare

| **Columns of "respiratoryCare" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| respCareID | int | IDENTITY | surrogate key for the respiratory data | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| respCareStatusYear | smallint | NOT NULL | year when the respiratory value was entered | No | No | T |
| respCareStatusTime24 | time(0) | NOT NULL | time in 24 hour format of when the respiratory care event occurred e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| respCareStatusTime | varchar(20) | NOT NULL | time frame when the respiratory value was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| respCareStatusOffset | int | NOT NULL | number of minutes from unit admit time that the respiratory value was entered | No | No | C |
| currentHistorySeqNum | int | NULL | the sequence number of the records for historical ordering | No | No | S |
| airwayType | varchar(30) | NULL | the airway picklist type input into the respiratory care status e.g.: Laryngectomy, Tracheostomy, Oral ETT, etc. | No | No | S |
| airwaySize | varchar(10) | NULL | the picklist airway size input into the respiratory care status e.g.: 35F, 9.5, NULL | No | No | S |
| airwayPosition | varchar(32) | NULL | picklist airway position for the patient e.g.: 23 @ lip, 26 @ teeth, 20, etc. | No | No | S |
| cuffPressure | decimal(5,1) | NULL | the picklist cuff pressure of the patient e.g.: 23.0, 22.0, NULL, etc. | No | No | S |
| ventStartYear | smallint | NULL | year when the vent started | No | No | T |
| ventStartTime24 | time(0) | NULL | time in 24 hour format of when the vent start occured e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| ventStartTime | varchar(20) | NULL | time frame when the vent started: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| ventStartOffset | int | NULL | number of minutes from unit admit time that the vent was started | No | No | C |
| ventEndYear | smallint | NULL | year when the vent ended | No | No | T |
| ventEndTime24 | time(0) | NULL | time in 24 hour format of when the vent event ended e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| ventEndTime | varchar(20) | NULL | time frame when the vent ended: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| ventEndOffset | int | NULL | number of minutes from unit admit time that the vent was ended | No | No | C |
| priorVentStartYear | smallint | NULL | year when the prior vent started | No | No | T |
| priorVentStartTime24 | time(0) | NULL | time in 24 hour format of when the prior vent start event occurred e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| priorVentStartTime | varchar(20) | NULL | time frame when the prior vent started: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| priorVentStartOffset | int | NULL | number of minutes from unit admit time that the prior vent was started | No | No | C |
| priorVentEndYear | smallint | NULL | year when the prior vent ended | No | No | T |
| priorVentEndTime24 | time(0) | NULL | time in 24 hour format of when the prior vent event ended e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| priorVentEndTime | varchar(20) | NULL | time frame when the prior vent ended: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| priorVentEndOffset | int | NULL | number of minutes from unit admit time that the prior vent was ended | No | No | C |
| apneaParms | varchar(80) | NULL | the picklist apnea parameters of the vent e.g.: set, on, done, etc. | No | No | S |
| lowExhMVLimit | decimal(11,4) | NULL | the low Ex MV Limit of the vent e.g: 5.0000, 200.0000, 3.0000, etc. | No | No | S |
| hiExhMVLimit | decimal(11,4) | NULL | the high Ex MV Limit of the vent e.g.: 18.000, 20.0000, 40.0000, etc. | No | No | S |
| lowExhTVLimit | decimal(11,4) | NULL | the low Exh TV limit of the vent e.g.: 300.0000, 200.0000, 350.0000, etc. | No | No | S |
| hiPeakPresLimit | decimal(11,4) | NULL | the high peak pressure limit of the vent e.g.: 45.0000, 65.0000, 50.0000, etc. | No | No | S |
| lowPeakPresLimit | decimal(11,4) | NULL | the low peak pressure limit of the vent e.g.: 10.0000, 150.0000, 15.0000, etc. | No | No | S |
| hiRespRateLimit | decimal(11,4) | NULL | the high respiration rate limit of the vent e.g.: 40.0000, 32.0000, 24.0000, etc. | No | No | S |
| lowRespRateLimit | decimal(11,4) | NULL | the low respiration rate limit of the vent e.g.: 12.0000, 5.0000, 8.0000, etc. | No | No | S |
| sighPresLimit | decimal(11,4) | NULL | the sigh pressure limit of the vent | No | No | S |
| lowIronOxLimit | decimal(11,4) | NULL | the low iron ox limit of the vent e.g.: 90.0000, 40.0000, 0.0000, etc. | No | No | S |
| highIronOxLimit | decimal(11,4) | NULL | the high iron ox limit of the vent e.g.: 100.0000, 120.0000, 90.0000, etc. | No | No | S |
| meanAirwayPresLimit | decimal(11,4) | NULL | the mean airway pressure limit of the vent e.g.: 60.0000, 45.0000, 50.0000, etc. | No | No | S |
| PEEPLimit | decimal(11,4) | NULL | the PEEP limit of the vent e.g.: 10.0000, 14.0000, 8.0000, etc. | No | No | S |
| CPAPLimit | decimal(11,4) | NULL | the CPAP limit of the vent e.g.: 2.0000, 10.0000, 5.0000, etc. | No | No | S |
| setApneaInterval | varchar(80) | NULL | the picklist apnea interval of the vent e.g.: .20, 1:5, 20 sec, etc. | No | No | S |
| setApneaTV | varchar(80) | NULL | the picklist apnea TV of the vent e.g.: 300, 460, 800, etc. | No | No | S |
| setApneaIPPEEPHigh | varchar(80) | NULL | the picklist apnea IPPEEP high of the vent e.g.: 5, 7.0, 3.0, etc. | No | No | S |
| setApneaRR | varchar(80) | NULL | the apnea RR of the vent e.g.: 20, 10, 28, etc. | No | No | S |
| setApneaPeakFlow | varchar(80) | NULL | th picklist e apnea peak flow of the vent e.g.: .80, 70, 100, etc. | No | No | S |
| setApneaInspTime | varchar(80) | NULL | the picklist apnea insp time of the vent e.g.: 096, 80, .7, etc. | No | No | S |
| setApneaIE | varchar(80) | NULL | the picklist apnea IE of the vent e.g.: 1:2, 1:5, 1:3, etc. | No | No | S |
| setApneaFIO2 | varchar(80) | NULL | the picklist apnea FIO2 of the vent e.g.: 1.0, 100, 100%, etc. | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | S |

### respiratoryCharting

| **Columns of "respiratoryCharting" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| respChartID | int | IDENTITY | surrogate key for the respiratory value | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| respChartYear | smallint | NOT NULL | year for the respiratory value | No | No | T |
| respChartDate | varchar(20) | NOT NULL | date name for the respiratory value: "weekend" or "weekday" | No | No | T |
| respChartTime | varchar(20) | NOT NULL | time frame for the respiratory value: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| respChartOffset | int | NOT NULL | number of minutes from unit admit time for the respiratory value | No | No | C |
| respChartEntryYear | smallint | NOT NULL | year when the respiratory value was entered | No | No | T |
| respChartEntryTime24 | time(0) | NOT NULL | time in 24 hour format of the respirator chart column e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| respChartEntryTime | varchar(20) | NOT NULL | time frame when the respiratory value was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| respChartEntryOffset | int | NOT NULL | number of minutes from unit admit time that the respiratory value was entered | No | No | C |
| respChartTypeCat | varchar(255) | NOT NULL | picklist category type for the respiratory value e.g.: respFlowSettings, respFlowPtVentData, respFlowCareData, etc | No | No | S |
| respChartValueLabel | varchar(255) | NOT NULL | the picklist row label text from respiratory value e.g.: Bag/Mask (attached to O2), HR, I:E Ratio, etc. | No | No | S |
| respChartValue | varchar(1000) | NULL | The text that was entered manually or via a interface for the given Cell Type Val Label e.g.: in room, 102, 1:2.0, etc. | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### riskScore

| **Columns of "riskScore" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| riskScoreID | int | IDENTITY | surrogate key for the Death and Readmission Risk Score value | Yes | No | C |
| patientHealthSystemStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| riskScoreType | int | NOT NULL | Risk Score type (1 if entry is Risk of Death, 0 if entry is Risk of Readmission) | No | No | S |
| riskScoreYear | smallint | NOT NULL | year when the Risk Score value was calculated | No | No | T |
| riskScoreTime24 | time(0) | NOT NULL | time in 24 hour format of the Risk Score calculation e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| riskScoreTime | varchar(20) | NOT NULL | time frame when the Risk Score value was calculated: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| riskScoreOffset | int | NOT NULL | number of minutes from unit admit time that the Risk Score value was calculated | No | No | C |
| riskScoreValue | decimal(6,3) | NOT NULL | Risk Score value; numeric percentage for the risk | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### rsReportBucket

| **Columns of "rsReportBucket" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| rsReportBucketID | int | IDENTITY | surrogate key for the Reporting Solutions report bucket value | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| reportConditionCategory | varchar(50) | NOT NULL | Reporting Solutions report condition category e.g.: Beta Blockers, Common Report Conditions, Report Totals, etc. | No | No | S |
| reportConditionDescription | varchar(255) | NOT NULL | Reporting Solutions report condition description e.g.: Actual Deaths (ICU Mortality), Not Treated, UGI Bleeding, etc. | No | No | S |
| reportConditionValue | varchar(50) | NULL | The value associated with the report condition description e.g. 56.5, 1.000 | No | No | S |

### smartAlert

| **Columns of "smartAlert" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| smartAlertID | int | IDENTITY | surrogate key for the smart alert value | Yes | No | C |
| patientUnitStayID | int | NULL | foreign key link to the patient table | No | Yes | C |
| alertName | varchar(255) | NOT NULL | Internal system name of the alert e.g.: Heart Rate Limit, Sepsis, Combined HR/Map, etc. | No | No | S |
| eventName | varchar(255) | NOT NULL | Internal system name of the event associated with the alert e.g.: HR Limit Low Alert, SEPSIS\_SEVERE\_SEPSIS, MAP Limit (A-Line) Moderate High Alert | No | No | S |
| severity | varchar(30) | NOT NULL | The internal system severity of the alert e.g.: Severe, Moderate | No | No | S |
| tiggerYear | smallint | NOT NULL | Year when the alert went off | No | No | T |
| tiggerTime24 | time(0) | NOT NULL | time in 24 hour format of when the smart alert trigger occurred e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| triggerTime | varchar(20) | NOT NULL | time frame when the alert was triggered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| triggerOffset | int | NOT NULL | number of minutes from unit admit time that the alert was triggered | No | No | C |
| reactivateYear | int | NULL | Year when the alert was reactivated | No | No | T |
| reactivateTime24 | time(0) | NULL | time in 24 hour format of when the smart alert was reactivated e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| reactivateTime | varchar(20) | NULL | time frame when the alert was reactivated: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| reactivateOffset | int | NULL | number of minutes from unit admit time that the alert was reactivated | No | No | C |
| partitionKey | tinyint | NULL | partition key of table | No | No | C |

### ssaDMF

| **Columns of "ssaDMF" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| ssaDMFID | int | NOT NULL | surrogate key for the SSA Death Master File information | Yes | No | C |
| patientUnitStayID | int | NULL | foreign key link to the patient table | No | Yes | C |
| expirationYear | smallint | NULL | Year when the patient expired | No | No | T |
| expirationOffset | int | NULL | number of minutes from unit admit time that the patient expired | No | No | C |
| matchRule | tinyint | NOT NULL | matching criteria rule used key e.g. “1”, “0”, “99”, etc. | No | No | C |
| fixedDOD | bit | NOT NULL | date of death “fixed” to first day of the month for DOD with “00” as day of death e.g. “12/00/1938” fixed to “12/01/1938” | No | No | C |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### surveyEICU

(placeholder for eICU Organizational Survey data; see [survey section](#surveys) below)

| **Columns of "healthSystemSurvey" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| healthSystemSurveyID | int | NOT NULL | surrogate key for the health system survey information | No | No | C |
| surveyYear | smallint | NOT NULL | the year in which the eICU survey information was collected | No | No | T |
| surveyQuestion | varchar(1000) | NOT NULL | The text question from the eICU survey | No | No | S |
| surveyAnswer | varchar(8000) | NOT NULL | The answer to the question from the eICU survey | No | No | S |

### surveyICU

(placeholder for ICU Organizational Survey data; see [survey section](#surveys) below)

| **Columns of "unitSurvey" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| unitID | int | NOT NULL | surrogate key for the unit survey info | Yes | Yes | C |
| locationID | int | NOT NULL | ID representing the source ICU. | No | No | C |
| healthSystemSurveyID | int | NULL | Foreign key link to the healthSystemSurvey table | No | Yes | C |
| surveyYear | smallint | NOT NULL | the year in which the ICU survey information was collected | No | No | T |
| surveyQuestion | varchar(1000) | NOT NULL | The text question from the ICU survey | No | No | S |
| surveyAnswer | varchar(8000) | NOT NULL | The answer to the quest from the ICU survey | No | No | S |

### treatment

| **Columns of "treatment" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| treatmentID | int | IDENTITY | surrogate key for the treatment | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| treatmentYear | smallint | NOT NULL | year when the treatment was entered | No | No | T |
| treatmentTime24 | time(0) | NOT NULL | time in 24 hour format of when the treatment event was entered e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| treatmentTime | varchar(20) | NOT NULL | time frame when the treatment was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| treatmentOffset | int | NOT NULL | number of minutes from unit admit time that the treatment was entered | No | No | C |
| treatmentString | varchar(200) | NOT NULL | the path of the treatment e.g.: neurologic|ICH/ cerebral infarct|thrombolytics|tenecteplase, cardiovascular|arrhythmias|antiarrhythmics|atropine, etc. | No | No | S |
| activeUponDischarge | varchar(10) | NOT NULL | denotes whether the treatment was active upon discharge from the unit: True or False | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### videoData

| **Columns of "videoData" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| videoDataID | int | IDENTITY | surrogate key for the video data value | Yes | No | C |
| patienthealthSystemStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| vidSessStartYear | smallint | NULL | year when the video session was started | No | No | T |
| vidSessStartTime24 | time(0) | NULL | time in 24 hour format of when the video session was started e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| vidSessStartTime | varchar(20) | NULL | time frame when the video session was started: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| vidSessStartOffset | int | NULL | number of minutes from unit admit time when the video session was started | No | No | C |
| vidSessEndYear | smallint | NULL | year when the video session ended | No | No | T |
| vidSessEndTime24 | time(0) | NULL | time in 24 hour format of when the video session ended e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| vidSessEndTime | varchar(20) | NULL | time frame when the video session ended: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| vidSessEndOffset | int | NULL | number of minutes from unit admit time when the video session ended | No | No | C |
| endDateReason | varchar(255) | NULL | reason video session ended e.g. “User Action”, “Inactive User”, “Orphaned session” | No | No | T |
| videoSessionStatus | varchar(255) | NULL | video session status e.g. “First In”, “View Only” | No | No | T |
| cameraTypeName | varchar(255) | NULL | camera type e.g. “Axis 2401”, “Pro Connections (STI)”, “Vidyo”, etc. | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### vitalAperiodic

| **Columns of "vitalAperiodic" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| vitalAperiodicID | int | IDENTITY | surrogate key for the aperiodic value | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| observationYear | smallint | NOT NULL | year when the aperiodic value was entered | No | No | T |
| observationTime24 | time(0) | NOT NULL | time in 24 hour format of the vital sign obsesrvation date e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| observationTime | varchar(20) | NOT NULL | time frame when the aperiodic value was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| observationOffset | int | NOT NULL | number of minutes from unit admit time that the aperiodic value was entered | No | No | C |
| nonInvasiveSystolic | real | NULL | patient's non invasive systolic value e.g.: 78, 102, 87, etc. | No | No | S |
| nonInvasiveDiastolic | real | NULL | patient's non invasive diastolic value e.g.: 40, 59, 49, etc. | No | No | S |
| nonInvasiveMean | real | NULL | patient's non invasive mean value e.g.: 56, 76, 65, etc. | No | No | S |
| paop | real | NULL | patient's paop value e.g.: 20, 18, 15, etc. | No | No | S |
| cardiacOutput | real | NULL | patient cardiac output value e.g.: 4.71, 5.81, 5.63, etc. | No | No | S |
| cardiacInput | real | NULL | patient cardiac input value e.g.: | No | No | S |
| svr | real | NULL | patient svr value e.g.: | No | No | S |
| svri | real | NULL | patient svri value e.g.: | No | No | S |
| pvr | real | NULL | patient pvr value e.g.: | No | No | S |
| pvri | real | NULL | patient pvri value e.g.: | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

### vitalPeriodic

| **Columns of "vitalPeriodic" Table** | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Datatype** | **Null Option** | **Comment** | **Is PK** | **Is FK** | **Stored Transformed Created** |
| vitalPeriodicID | int | IDENTITY | surrogate key for periodic value | Yes | No | C |
| patientUnitStayID | int | NOT NULL | foreign key link to the patient table | No | Yes | C |
| observationYear | smallint | NOT NULL | year when the periodic value was entered | No | No | T |
| observationTime24 | time(0) | NOT NULL | time in 24 hour format of the vital sign e.g.: “12:45”, “15:30”, “3:45” | No | No | T |
| observationTime | varchar(20) | NOT NULL | time frame when the periodic value was entered: 'midnight', 'morning', 'midday', 'noon', 'evening', or 'night' | No | No | T |
| observationOffset | int | NOT NULL | number of minutes from unit admit time that the periodic value was entered | No | No | C |
| temperature | decimal(11,4) | NULL | patient's temperature value in celcius e.g.: 36.1000, 37.8000, 35.5000, etc. | No | No | S |
| saO2 | int | NULL | patient's saO2 value e.g.: 99, 94, 98, etc. | No | No | S |
| heartRate | int | NULL | patient's heart rate value e.g.: 102, 104, 70, etc. | No | No | S |
| respiration | int | NULL | patient's respiration value e.g.: 25, 20, 17, etc. | No | No | S |
| cvp | int | NULL | patient's cvp value e.g.: 359, 272, 293, etc. | No | No | S |
| etCo2 | int | NULL | patient's etCo2 value e.g.: 31, 29, 35, etc. | No | No | S |
| systemicSystolic | int | NULL | patient's systolic value e.g.: 120, 103, 106, etc. | No | No | S |
| systemicDiastolic | int | NULL | patient's diastolic value e.g.: 73, 65, 63, etc. | No | No | S |
| systemicMean | int | NULL | patient's mean pressure e.g.: 89, 75, 78, etc. | No | No | S |
| paSystolic | int | NULL | patient's paSystolic e.g.: 40, 43, 33, etc. | No | No | S |
| paDiastolic | int | NULL | patient's paDiastolic value e.g.: 26, 20, 21, etc. | No | No | S |
| paMean | int | NULL | patient's paMean value e.g.: 31, 33, 25, etc. | No | No | S |
| st1 | real | NULL | patient's st1 value e.g.: -0.85, 0.2, -0.3, etc. | No | No | S |
| st2 | real | NULL | patient's st2 value e.g.: -0.1, 0.8, -0.9, etc. | No | No | S |
| st3 | real | NULL | patient's st3 value e.g.: 0.2, -0.4, -1.1, etc. | No | No | S |
| ICP | int | NULL | patient's ICP value e.g.: 106, 13, 46, etc. | No | No | S |
| partitionKey | tinyint | NOT NULL | partition key of table | No | No | C |

# eICU and ICU Organizational Surveys

Attachment 1 and 2 contain the eICU and ICU survey questions. [Note: Documents attached for convenience. Only the questions and respective answers are stored in the database. None of the identifying header information is stored by the extraction logic (ETL).]

Document Information Page

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Revision History

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Version |  | Date |  | Author |  | Description |
| 1.0 |  | 03-11-2009 |  | Ken Lawrence |  | Initial version |
| 2.0 |  | 08-20-2009 |  | Keith Brooks, Dave McKenney |  | Updated per PrivaCert feedback |
| 3.0 |  | 9-3-2009 |  | Ken Lawrence |  | Updated per EMG feedback |
| 4.0 |  | 10-28-2009 |  | Dave McKenney |  | Corrected data type of “apacheVersion” column |
| 5.0 |  | 10-05-2011 |  | Keith Brooks |  | Updated for version 2.0 and PrivaCert feedback |
| 5.1 |  | 06-19-2012 |  | Kim Cope |  | Updated Line Log |
| 5.2 |  | 07-1-2013 |  | Keith Brooks |  | Added missing nurse Assessment and nurseCare tables. Fixed nurseCharting label |
| 6.0 |  | 08-27-2013 |  | Keith Brooks |  | Updated for version 3.0 and PrivaCert feedback. |
| 6.1 |  | 09-13-2013 |  | Keith Brooks |  | Updated with Clinical Analytics feedback |

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