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CROWNWeb 4.0.2
Interface Control Document (ICD)
For XML Schemas for Electronic Data Interchange (EDI)

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1. INTRODUCTION

This Interface Control Document (ICD) describes the relationship between the Consolidated Renal Operations in a Web-Enabled Network (CROWNWeb) application and the various external systems (including user browser agents) that interact with CROWNWeb via electronic data interchange (EDI) for the processing of batch patient and clinical data submission.

This ICD specifies the interface requirements to be met by the participating systems. It describes the concept of operations for the interface, defines the message structure and protocols that govern the interchange of data, and identifies the communication paths along which the data shall flow.

This document provides:

- An overview of the EDI interaction
- A general description of the interface, focusing on the use XML (“eXtensible Markup Language”) specifications
- Assumptions where appropriate
- A description of the XML schemas that prescribe the format and content for exchanged data (messages)

2. REFERENCED DOCUMENTS

Table 1: Referenced Documents

| Document Name | Document Number | Issuance Date |
|--|------------------------|----------------------|
| Kidney Data Dictionary (KDD) Release 1.2 | | April 3, 2009 |
| Interface Control Document ILC Template | V1.1 | August 5, 2008 |

3. OVERVIEW

The CROWNWeb (Consolidated Renal Operations in a Web-Enabled Network , also referred to as CROWN) system allows certain users, the “Batch Submitting Organizations” (BSOs), to exchange data with the CROWN application via the electronic data interchange (EDI) of messages. The BSO’s IT system creates messages as XML (eXtensible Markup Language) documents representing patient demographic or clinical data. XML is a standard platform-neutral text format to represent information for data exchange. The BSOs then submit these XML message documents through the CROWN system, which processes the information according to its normal business logic, then generates feedback messages, also XML documents, for retrieval by the BSO.

CROWN specifies XML schema documents (XSD documents, or XSDs) to define and constrain the form and content of its XML message documents. A schema document or set of interrelated XSDs defines XML namespaces, or labeled structures, that identify and constrain the elements, attributes and types for conformance. If the XML document complies with the layout and content of its schema namespace, it is valid for that namespace, otherwise it is not valid.

The XML world identifies each unique document namespace by a unique Uniform Resource Identifier (URI). The schemas for CROWN define several namespaces, whose URIs are:

- <http://crown.esrd.net/crown>
- <http://crown/crown-demographic-feedback>
- <http://crown/crown-clinical-feedback>

Despite their appearance, these URIs are not URLs (Uniform Resource Locators); there is not necessarily a web address to correspond to any of these. As URIs, they name (“identify”) the particular schema patterns in use by a particular XML document, but don’t promise an actual location where to find that specification.

The <http://crown.esrd.net/crown> namespace defines the XML elements, attributes and types for CROWNWeb messages, packaged as XML documents submitted by users to the application. The feedback namespaces define the XML elements, attributes and types used for the replies to those submissions.

4. ASSUMPTIONS/CONSTRAINTS/RISKS

4.1 ASSUMPTIONS

The CROWNWeb EDI protocols assume:

- EDI users provide their own mechanisms to generate XML submissions for CROWNWeb and to parse and process the XML replies.
- CROWNWeb will support different access channels for EDI exchange. Currently, it allows users to upload XML files through the graphical user interface (GUI). In the future, it will allow connections directly from the CMS enterprise infrastructure.

4.2 CONSTRAINTS

CROWNWeb design must account for the system's deployment constraints:

- The CROWNWeb implementation must conform to CMS requirements, in particular to the three-tier technical reference architecture (TRA).
- A submission file size can be no greater than 50MB. A file larger than 50MB will result in the display error: "The file you selected exceeded the size limit of 50MB. Please select a file to upload again."
- 'Collection Type' (Hemodialysis, Vascular Access, Peritoneal Dialysis) data must be submitted either in separate clinical sections within a patient's clinical submission or within totally separate clinical files. Submitting this data together without segmenting the collection type may result in errors returned.
- A patient record must be submitted prior to a clinical record being accepted by CROWNWeb for new End-Stage Renal Disease (ESRD) patients or facility transfer patients. Submitting a clinical record without a patient record first may result in errors returned.

4.3 RISKS

To the extent technically feasible, the CROWNWeb design addresses risks to the system, to wit:

- RISK: Exchange protocols can be rigid, obscure and tricky to implement and maintain.
 - Amelioration: XML exchange is a well-understood and well-documented field, supported by many software platforms with readily available frameworks. The XML format is robust, extensible (as the name suggests) and being text-based, relatively easy to maintain. This reduces the cost and risks of error for the data-exchange protocol.
- RISK: Data may be misrepresented, miss required elements, appear in the wrong format, or have other surface error.

- Amelioration: XML schemas precisely define acceptable structures and formats for XML documents. Confirmation of an XML message's schema validity is straightforward and rapidly filters out such errors.
- The XML elements and types were designed to represent domain-specific entity information.
- RISK: Schema-valid data might fail to conform to CROWN business rules.
 - Amelioration: The EDI module relays schema-validated data as software constructs to CROWN's normal validation and persistence processes, and relays feedback messages back to the user to enable them to address discrepancies.

5. GENERAL INTERFACE REQUIREMENTS

There currently are two ways to feed information to the CROWNWeb system, via the web application's browser-based graphical user interface (GUI) screens, or via an electronic data interchange (EDI) message formatted as an XML document and uploaded as a batch through the GUI's EDI screens. This section describes the EDI processing via the GUI upload process. In the future, CROWNWeb will support exchange of the same types of XML messages through a CMS enterprise-wide service mechanism.

Currently, users use the CROWNWeb GUI to upload and download XML document files. CROWNWeb in the future will exchange XML data streams via the CMS enterprise infrastructure. Either mechanism submits XML documents to CROWN and retrieves XML documents back from it.

5.1 INTERFACE OVERVIEW

Overall, the XML processing follows the flow illustrated in **Figure 1**, below. The flow of data through the interface is described in section [6.1.2. General Processing Steps](#).

5.2 FUNCTIONAL ALLOCATION

The external systems provide an XML document submission to CROWN. CROWN parses the document into an internal form and confirms its XML validity.

5.3 DATA TRANSFER

All EDI access points pass XML documents to the CROWNWeb EDI subsystem and receive XML documents from it. Please refer to Section 6.1.2 General Processing Steps.

5.4 TRANSACTIONS

There are no transactions within the EDI subsystem. The CROWNWeb business logic manages transactions involving the extracted information, but that is out of scope for the XML messaging processes.

5.5 SECURITY AND INTEGRITY

CROWN does have security mechanisms in place to restrict delivery of EDI messages, access to EDI features, or operations on EDI-submitted data. These are not part of the EDI subsystem but of other CROWNWeb modules, and are out of scope for this document.

6. DETAILED INTERFACE REQUIREMENTS

6.1 EDI XML SCHEMA REQUIREMENTS

The XML Schema Document (XSD) specifications define XML types, elements and attributes that represent data for interchange with the CROWNWeb system. The items correspond to CROWN system requirements; the correlations are detailed in section 6.1.4., “XML Document Format and Corresponding Requirements”.

6.1.1 ASSUMPTIONS AND DESIGN GOALS

6.1.1.1 ASSUMPTIONS

The design of CROWNWeb’s XML-based communication protocol assumes that:

- EDI participant systems meet the general business and infrastructure requirements to participate in the data exchange.
- All EDI exchanges with CROWNWeb will feed through its common XML-processing software layers, or “stack”.
- The validation and persistence layers (stacks) are the same for data whether flowing through the EDI stack or the GUI.

These assumptions allow the XML schemas to focus on data representation and its logical structure, leaving all processing responsibility outside their scope.

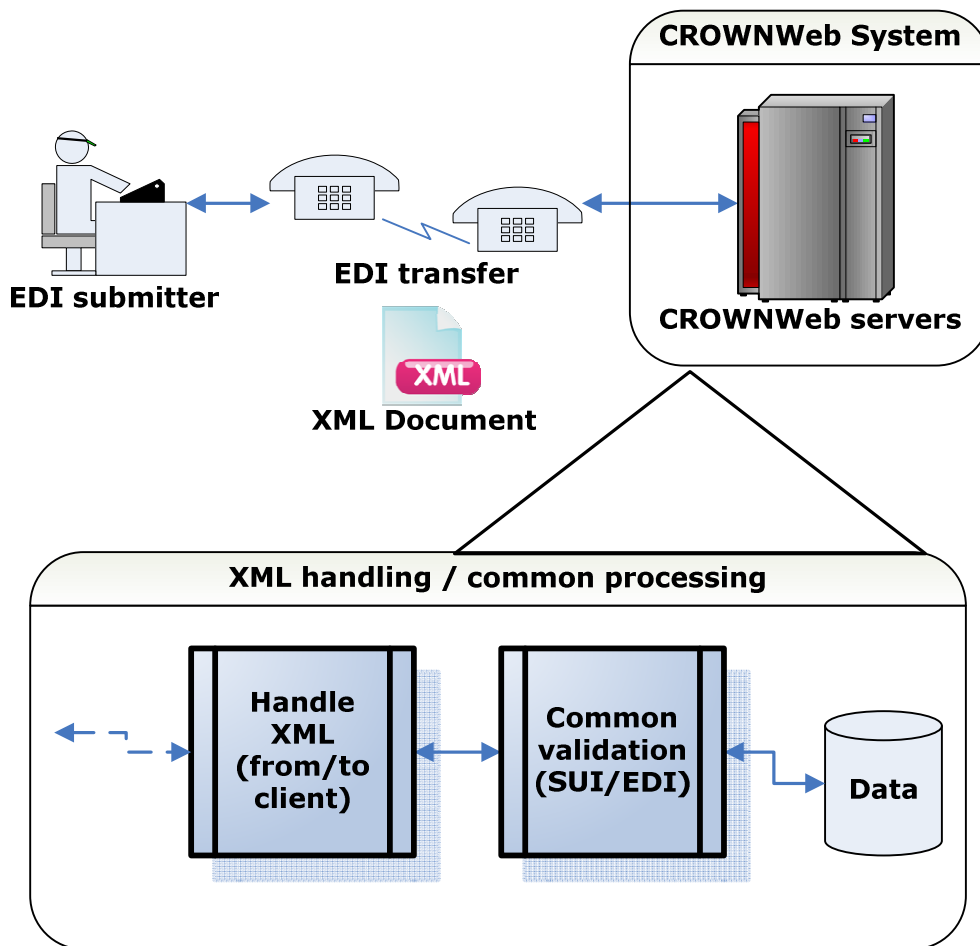
6.1.1.2. DESIGN GOALS

The design influences on the XML schemas included:

- The XML should represent the data to exchange and the broad operations requested for that data, not the detailed processing logic.
- The schema design should follow industry best practices.
- The XML processing steps should not impose barriers to deployment configuration or performance tuning.
- The XML processing should not impose barriers to feature enhancements such as the creation of new EDI messages or new connection channels.
- Include the new elements required for version CROWNWeb 4.0.2.
- Facilitate resolution of batch-submission discrepancies.
- Reduce the risk of inconsistencies between different XML submission types (currently comprising patient demographic information and patient clinical information).
- Enable common validation, processing, and persistence logic for data entered whether via the GUI or via XML communication channels.
- Improve the schema structures to be more logical and maintainable.
- Bring the XML structures to closer alignment with the domain ontology.
- Anticipate and facilitate future enhancements, such as planned additional enterprise communication channels for CROWNWeb XML data.
- Improve the clarity of internal documentation and nomenclature within the schemas.
- Ensure smooth integration with the enterprise infrastructure, particularly the three-tier architecture.

6.1.2. GENERAL PROCESSING STEPS

Figure 1: EDI (XML) Process Flow



CROWNWeb understands two types of EDI documents – patient demographic data, such as name, address, admission date, treatment modality, and other data descriptive of the patient’s status, and clinical data, such as lab results, treatment details and the like.

The general processing steps for EDI processing are:

1. The BSO user starts with an XML document representing data to submit to CROWN.
2. Using the CROWNWeb interface, the user transmits (uploads) the document to CROWN.
 - a. Data flows to and from the CROWN system using the TCP/IP and HTTP protocols.
3. The CROWNWeb application receives the XML document.
4. CROWN parses (translates) the document into internal software structures.
5. CROWN confirms the XML schema validity of the input.
 - a. If the document is not valid, CROWN returns an error message.
6. CROWN performs business validations on the information, such as confirmation that treatment dates comply with system policies or that the supposedly new patient is not a duplicate of one already in the system.
 - a. CROWN assembles any errors or warnings from the validation process for use in the feedback message.
7. CROWN updates persistent data according to the submitted information.
 - a. CROWN assembles any errors or warnings from the persistence process for use in the feedback message.
8. CROWN stores the feedback information for retrieval by the BSO.
9. Using the CROWNWeb interface, the user retrieves the feedback document related to the submission.
10. The BSO uses the feedback document in accordance with their procedures.

6.1.3. INTERFACE PROCESSING TIME REQUIREMENTS

The System shall process submitted files within 24 hours of submission depending upon availability of the system.

6.1.4. XML DOCUMENT FORMAT AND CORRESPONDING REQUIREMENTS

This section details the contents of the XML schemas and how they relate to requirements and business-domain concepts.

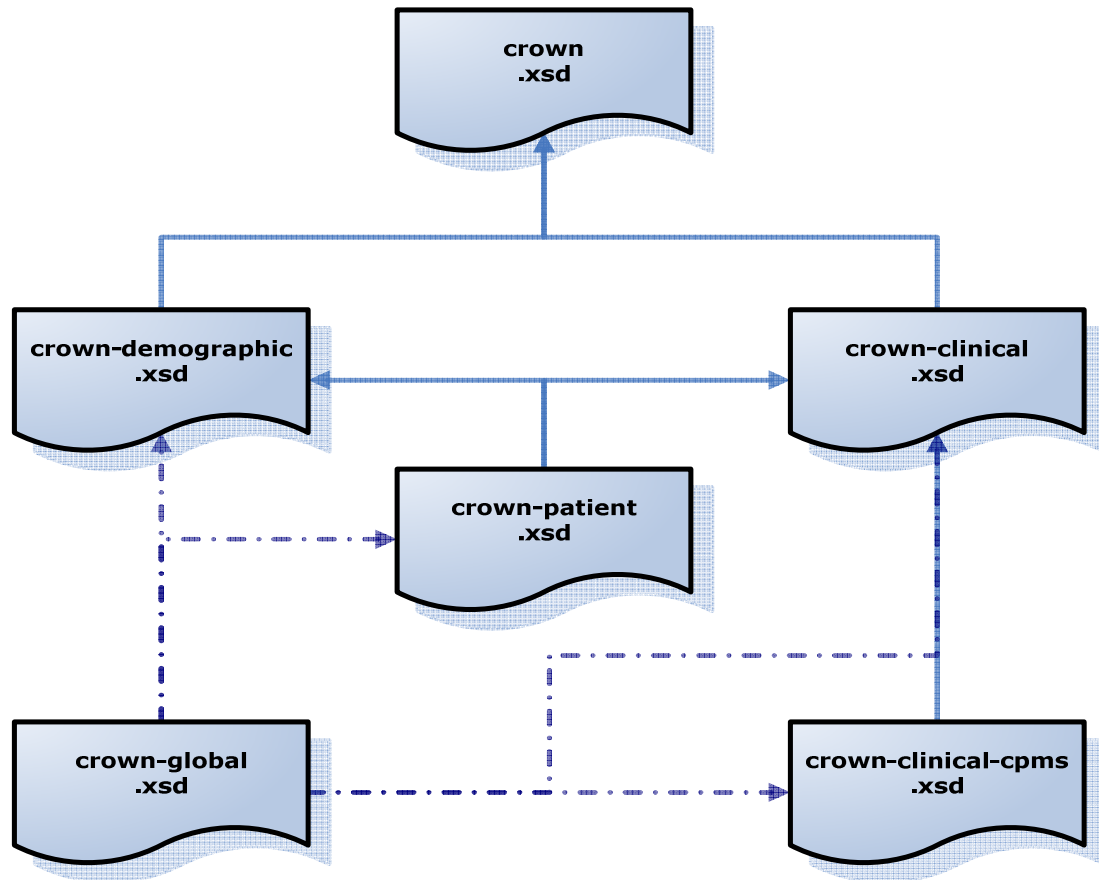
6.1.4.1. XML SCHEMA LAYOUT

For convenience, the overall XML schema namespace is split among several individual XSD documents, starting with “crown.xsd”. Logically, all these XSDs combine into a single CROWN schema, identified by the namespace “<http://crown.esrd.net/crown>”.

The two types of EDI submission, demographic and clinical, are represented by the two top-level XML elements defined in “crown.xsd”, “demographic”, and “clinical”, respectively.

The relationship among the documents is shown in **Figure 2**. An arrow depicts that a document “feeds into” or is included by another. For example, nearly every XSD includes “crown-global.xsd”. The dashed lined arrow depicts where the crown-global.xsd defines attributes that are called within the associated schemas.

Figure 2: XSD Document Relationships



The CROWNWeb Batch Schemas consist of six separate schemas. Crown.xsd, crown-demographic.xsd, crown-clinical.xsd, crown-patient.xsd, crown-clinical-cpms.xsd, crown-global.xsd.

Section [6.1.4.3. Field/Element Definition](#) details the content of the XSD schemas and what it specifies.

6.1.4.2. DATA ASSEMBLY CHARACTERISTICS

XML data files shall be created and assembled outside of the system to conform to the CROWNWeb 4.0.2 Batch Specifications. Definition of fields and elements are provided in Section [6.1.4.3. Field/Element Definition](#).

6.1.4.3. FIELD/ELEMENT DEFINITION

The XML schema defines all the business elements needed for data exchange.

Table 2: Field/Element Definition

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|------------------------------|--------------------|-----------------------------|-------------------------|---|----------------|
| crown.xsd | | demographic | Demographic | N/A: Organize and support consistency among other data elements | N/A |
| crown.xsd | | clinical | Clinical | N/A: Organize and support consistency among other data elements | N/A |
| crown-demographic.xsd | Demographic | orgAffiliation | OrganizationAffiliation | Authorized Batch Submitting Organization | RQMT_1135 |
| crown-demographic.xsd | Demographic | patient | Patient | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical.xsd | Clinical | orgAffiliation | OrganizationAffiliation | Authorized Batch Submitting Organization | RQMT_1135 |
| crown-clinical.xsd | Clinical | clinicalPeriod | Period | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical.xsd | Clinical | patientClinical | PatientClinical | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical.xsd | PatientClinical | orgFacilityCode | xsd:string | Organizational Facility Code | RQMT_14 |
| crown-clinical.xsd | PatientClinical | orgPatientId | xsd:string | Organization Patient ID | N/A |
| crown-clinical.xsd | PatientClinical | patientId | PatientIdentifier | CROWN Unique Patient Identifier (UPI) | RQMT_111 |
| crown-clinical.xsd | PatientClinical | clinicalRecord | ClinicalRecord | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical.xsd | ClinicalRecord | labValues | LabValues | N/A: Organize and support consistency among other data elements | N/A |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|---------------------------|--------------------|-----------------------------|---|---|----------------|
| crown-clinical.xsd | ClinicalRecord | vascularAccess | VascularAccess | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical.xsd | ClinicalRecord | cpms | CPMs | N/A: Organize and support consistency among other data elements | N/A |
| crown-patient.xsd | Patient | orgPatientId | NonEmptyString | Organization Patient Id | RQMT_218 |
| crown-patient.xsd | Patient | effectiveDate | xsd:date | Effective Date | RQMT_34 |
| crown-patient.xsd | Patient | patientIdentifier | PatientIdentifier | N/A: Organize and support consistency among other data elements | N/A |
| crown-patient.xsd | Patient | citizenshipStatus | CitizenshipStatus | Patient Citizenship Status | RQMT_1074 |
| crown-patient.xsd | Patient | medicareEnrollmentStatus | MedicareEnrollmentStatus | Medicare Enrollment Status | RQMT_212 |
| | | | | | RQMT_213 |
| crown-patient.xsd | Patient | employmentStatus | EmploymentStatus | Patient Current Employment Status | RQMT_137 |
| crown-patient.xsd | Patient | schoolStatus | SchoolStatus | Patient Current School Status | RQMT_151 |
| crown-patient.xsd | Patient | vocationalRehab | VocationalRehab | Patient Current Vocational Rehabilitation Status | RQMT_152 |
| crown-patient.xsd | Patient | address | Address | N/A: Organize and support consistency among other data elements | N/A |
| crown-patient.xsd | Patient | phone | Phone | N/A: Organize and support consistency among other data elements | N/A |
| crown-patient.xsd | Patient | admitDischarge | AdmitDischarge | N/A: Organize and support consistency among other data elements | N/A |
| crown-patient.xsd | CitizenshipStatus | | enumeration: USCitizen, NonUSCitizen, ForeignUSResident, USResident | Patient Citizenship Status | RQMT_1074 |
| crown-patient.xsd | PatientIdentifier | lastName | LastName | Patient Last Name | RQMT_113 |
| crown-patient.xsd | PatientIdentifier | firstName | FirstName | Patient First Name | RQMT_115 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------|------------------------|-----------------------------|---|---|----------------|
| crown-patient.xsd | PatientIdentifier | middleInitial | MiddleInitial | Patient Middle Initial | RQMT_116 |
| crown-patient.xsd | PatientIdentifier | suffix | Suffix | Patient Suffix | RQMT_114 |
| crown-patient.xsd | PatientIdentifier | hicnum | Hicnum | Patient Medicare Claim Number | RQMT_117 |
| crown-patient.xsd | PatientIdentifier | ssn | SSN | Patient Social Security Number | RQMT_120 |
| crown-patient.xsd | PatientIdentifier | crownPatientId | xsd:string | CROWN Unique Patient Identifier (UPI) | RQMT_111 |
| crown-patient.xsd | PatientIdentifier | gender | Gender | Patient Sex/Gender | RQMT_118 |
| crown-patient.xsd | PatientIdentifier | dob | xsd:date | Patient Date of Birth | RQMT_119 |
| crown-patient.xsd | PatientIdentifier | dod | xsd:date | Patient Date of Death | RQMT_135 |
| crown-patient.xsd | PatientIdentifier | raceEthnicity | RaceEthnicity | N/A: Organize and support consistency among other data elements | N/A |
| crown-patient.xsd | PatientIdentifier | countryOfOrigin | Country | Patient Country/Area of Origin or Ancestry | RQMT_747 |
| crown-patient.xsd | PatientIdentifier | hicnumNA | xsd:boolean {false} | Patient Medicare Claim Number Not applicable | RQMT_117 |
| crown-patient.xsd | PatientIdentifier | ssnNA | xsd:boolean {false} | Patient Social Security Number Not applicable | RQMT_120 |
| crown-patient.xsd | SSN | | xsd:string | Patient Social Security Number | RQMT_120 |
| crown-patient.xsd | Hicnum | | xsd:string | Patient Medicare Claim Number | RQMT_117 |
| crown-patient.xsd | RaceEthnicity | race | Race | Patient Race | RQMT_131 |
| crown-patient.xsd | RaceEthnicity | ethnicity | Ethnicity | Patient Ethnicity | RQMT_129 |
| crown-patient.xsd | RaceEthnicity | selfReported | ListedRaceSelfReported | Patient's Self Reporting of Race and Ethnicity | RQMT_1066 |
| crown-patient.xsd | Race | raceCode | RaceCode | Patient Race | RQMT_131 |
| crown-patient.xsd | Race | tribeCode | TribeCode | Name of Enrolled/Principal Tribe | RQMT_748 |
| crown-patient.xsd | ListedRaceSelfReported | | enumeration: SelfReported, NotSelfReported, FamilyReported, PatientDeclined | Patient's Self Reporting of Race and Ethnicity | RQMT_1066 |
| crown-patient.xsd | AdmitDischarge | admitDischargeUniqueId | NonEmptyString | Admit/Discharge Unique Identifier | N/A |
| crown-patient.xsd | AdmitDischarge | orgFacilityCode | NonEmptyString | CROWN Facility Unique Identifier | RQMT_352 |
| crown-patient.xsd | AdmitDischarge | admitDate | xsd:date | Admit Date | RQMT_354 |
| crown-patient.xsd | AdmitDischarge | admitReason | AdmitReason | Admit Reason | RQMT_355 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------|--------------------|---|----------------------|---|----------------|
| crown-patient.xsd | AdmitDischarge | transient | xsd:boolean | Transient Status | RQMT_356 |
| crown-patient.xsd | AdmitDischarge | transientReason | TransientReason | Transient Reason | RQMT_357 |
| crown-patient.xsd | AdmitDischarge | dischargeDate | xsd:date | Discharge Date | RQMT_361 |
| crown-patient.xsd | AdmitDischarge | dischargeReason | DischargeReason | Discharge Reason | RQMT_362 |
| crown-patient.xsd | AdmitDischarge | involuntaryDischarge | InvoluntaryDischarge | Involuntary Discharge | RQMT_363 |
| crown-patient.xsd | AdmitDischarge | transferDischarge | TransferDischarge | Transfer Discharge Subcategory | RQMT_364 |
| crown-patient.xsd | AdmitDischarge | transientAddress | Address | Patient Transient Address | RQMT_375 |
| crown-patient.xsd | AdmitDischarge | transientPhoneNumber | Phone | Patient Transient Contact Phone Number | RQMT_380 |
| crown-patient.xsd | AdmitDischarge | modality | Modality | Primary Type of Treatment (Modality) | RQMT_367 |
| crown-patient.xsd | AdmitDischarge | action "action" currently not used by the system except for Medication Allergy section | Action {declare} | N/A - System Action | N/A |
| crown-patient.xsd | Modality | practitioner | Physician | CROWN Personnel Unique Identifier | RQMT_84 |
| crown-patient.xsd | Modality | modalityId | NonEmptyString | Modality Unique Identifier | N/A |
| crown-patient.xsd | Modality | changeDate | xsd:date | Effective Date (Change) | RQMT_150 |
| | | | | Treatment Start Date | RQMT_365 |
| crown-patient.xsd | Modality | dialysisSetting | DialysisSetting | Primary Dialysis Setting | RQMT_366 |
| crown-patient.xsd | Modality | primaryTreatmentType | TreatmentType | Primary Type of Treatment | RQMT_367 |
| crown-patient.xsd | Modality | prescribedSessionsPerWeek | xsd:decimal | Sessions per Week | RQMT_368 |
| crown-patient.xsd | Modality | minutesPerSession | xsd:positiveInteger | Time Per Session (Delivered) | RQMT_369 |
| crown-patient.xsd | Modality | dialysisTraining | DialysisTraining | N/A: Organize and support consistency among other data elements | N/A |
| crown-patient.xsd | Physician | orgId | NonEmptyString | Organization Facility Code | RQMT_14 |
| crown-patient.xsd | Physician | lastName | NonEmptyString | Attending Practitioner Name | RQMT_370 |
| crown-patient.xsd | Physician | firstName | NonEmptyString | Attending Practitioner Name | RQMT_370 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------|----------------------|-----------------------------|---|---|----------------|
| crown-patient.xsd | Physician | upin | UPIN | Attending Practitioner UPIN | RQMT_372 |
| crown-patient.xsd | Physician | npi | NPI | Attending Practitioner National Provider Identifier (NPI) | RQMT_373 |
| crown-patient.xsd | DialysisTraining | trainingType | DialysisType | Type of Training | RQMT_367 |
| crown-patient.xsd | DialysisTraining | value | xsd:string | Type of Training | RQMT_367 |
| crown-patient.xsd | DialysisTraining | dialysisPeriod | DialysisPeriod | Dialysis Time Period | RQMT_1073 |
| crown-patient.xsd | DialysisTraining | dialysisTrainingStart | xsd:date | Date Training Began | RQMT_274 |
| crown-patient.xsd | DialysisTraining | dialysisTrainingEnd | xsd:date | Training Completion Date | RQMT_278 |
| crown-patient.xsd | DialysisTraining | expectedSelfCare | SelfCareSetting | Expected Self-Care Setting | RQMT_1070 |
| crown-patient.xsd | Suffix | | enumeration: 1 - 7 | Patient Suffix | RQMT_114 |
| crown-patient.xsd | Gender | | enumeration: M, F | Patient Sex/Gender | RQMT_118 |
| crown-patient.xsd | AdmitReason | | enumeration: 1-5 | Admit Reason | RQMT_355 |
| crown-patient.xsd | TransientReason | | enumeration: 1-7 | Transient Reason | RQMT_357 |
| crown-patient.xsd | DischargeReason | | enumeration: 1 - 9,11 | Discharge Reason | RQMT_362 |
| crown-patient.xsd | InvoluntaryDischarge | | enumeration: 1-7 | Involuntary Discharge | RQMT_363 |
| crown-patient.xsd | TransferDischarge | | enumeration: 1-6 | Transfer Discharge Subcategory | RQMT_364 |
| crown-patient.xsd | DialysisSetting | | enumeration: 1-3 | Primary Dialysis Setting | RQMT_366 |
| crown-patient.xsd | TreatmentType | | enumeration: 1-4 | Primary Type of Treatment | RQMT_367 |
| crown-patient.xsd | Ethnicity | | enumeration: 6-7 | Patient Ethnicity | RQMT_129 |
| crown-patient.xsd | SchoolStatus | | enumeration: 1-3 | Patient Current School Status | RQMT_151 |
| crown-patient.xsd | EmploymentStatus | | enumeration: Unemployed, FullTime, PartTime, Homemaker, RetiredAgePref, RetiredDisability, MedicalLeave, Student | Patient Current Employment Status | RQMT_137 |
| crown-patient.xsd | VocationalRehab | | enumeration: 1-5 | Patient Current Vocational Rehabilitation Status | RQMT_152 |
| crown-patient.xsd | RaceCode | | enumeration: 1 - 4, 6 | Patient Race | RQMT_131 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------------|--------------------|-----------------------------|--|--|----------------|
| crown-patient.xsd | TribeCode | | enumeration: 0 - 448, 990, 997 : except: 239, 241-242, 253-254, 264,-265, 270-271, 288-289, 292, 296-302, 310-311, 316-319, 325- 329, 341-344, 361-362, 386-289, 409, 414, 416, 436-440 | Name of Enrolled/Principal Tribe | RQMT_748 |
| crown-clinical-cpms.xsd | CPMs | medicationAllergy | MedicationAllergy | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical-cpms.xsd | CPMs | adequacy | Adequacy | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical-cpms.xsd | CPMs | esaPrescription | ESAPrescription | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical-cpms.xsd | CPMs | fluidWeightManagement | FluidWeightManagement | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical-cpms.xsd | CPMs | hospitalization | Hospitalization | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical-cpms.xsd | CPMs | vaccinations | Vaccinations | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical-cpms.xsd | CPMs | vascularAccessInfection | Infection | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical-cpms.xsd | CPMs | ironCpm | IronCpm | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical-cpms.xsd | CPMs | vitaminDCpm | VitaminDCpm | N/A: Organize and support consistency among other data elements | N/A |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------------|-----------------------|---|-------------------------|---|-----------|
| crown-clinical-cpms.xsd | CPMs | action "action" currently not used by the system except for Medication Allergy section | Action {declare} | N/A - System Action | N/A |
| crown-clinical-cpms.xsd | Adequacy | hKtVInfo | HKtVInfo | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical-cpms.xsd | Adequacy | pKtVInfo | PKtVInfo | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical-cpms.xsd | Adequacy | residualRenalFuncReceived | xsd:boolean | Residual Renal Function Testing Performed | RQMT_1011 |
| crown-clinical-cpms.xsd | ESA | wasPrescribed | xsd:boolean | ESA Agent Was Prescribed | RQMT_305 |
| crown-clinical-cpms.xsd | ESA | prescription | ESAPrescription | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical-cpms.xsd | ESAPrescription | date | xsd:date | Date ESA Prescription Changed | RQMT_306 |
| crown-clinical-cpms.xsd | ESAPrescription | agent | ESAAgent | ESA Agent | RQMT_976 |
| crown-clinical-cpms.xsd | ESAPrescription | monthlyDose | xsd:decimal | ESA Monthly Dose | RQMT_977 |
| crown-clinical-cpms.xsd | ESAPrescription | doseMeasure | DoseMeasure | ESA Monthly Dose Measurement | RQMT_977 |
| crown-clinical-cpms.xsd | ESAPrescription | esaRoute | ListedDeliveryRouteOnly | ESA Route | RQMT_978 |
| crown-clinical-cpms.xsd | FluidWeightManagement | sodiumEducationNotReceived | xsd:boolean | Education on Sodium Restriction Not Received | N/A |
| crown-clinical-cpms.xsd | FluidWeightManagement | sodiumEducationDate | xsd:date | Date Patient Education on Sodium Restriction | RQMT_1044 |
| crown-clinical-cpms.xsd | FluidWeightManagement | sodiumProfilingRxed | xsd:boolean | Sodium Profiling/Modeling Prescribed | RQMT_1045 |
| crown-clinical-cpms.xsd | FluidWeightManagement | constantDialysateSodiumRxed | xsd:boolean | Constant Dialysate Sodium | RQMT_1046 |
| crown-clinical-cpms.xsd | FluidWeightManagement | dialysateSodiumOver138 | xsd:boolean | Dialysate Sodium Concentration | RQMT_1048 |
| crown-clinical-cpms.xsd | FluidWeightManagement | postDialysisWgtAssessmentDate | xsd:date | Post Dialysis Weight Assessment Date | RQMT_1053 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------------|-----------------------|-----------------------------------|------------------------------|--|----------------|
| crown-clinical-cpms.xsd | FluidWeightManagement | postDialysisTargetWgtRxed | xsd:boolean | Post-Dialysis Target Weight for Session | RQMT_1052 |
| crown-clinical-cpms.xsd | FluidWeightManagement | homeBPPProvided | xsd:boolean | Home Blood Pressure Values Provided | RQMT_1054 |
| crown-clinical-cpms.xsd | FluidWeightManagement | homeBPStatus | BPStatus | Home Blood Pressure Status | RQMT_1119 |
| crown-clinical-cpms.xsd | FluidWeightManagement | dryWeightRxed | xsd:boolean | Dry Weight Order | RQMT_1120 |
| crown-clinical-cpms.xsd | FluidWeightManagement | hasEdema | xsd:boolean | Presence of Edema | RQMT_1122 |
| crown-clinical-cpms.xsd | FluidWeightManagement | echocardiogramDate | xsd:date | Echocardiogram Dates | RQMT_1049 |
| crown-clinical-cpms.xsd | FluidWeightManagement | hasAbnormalBreathSounds | xsd:boolean | Presence of Abnormal Breath Sounds | RQMT_1123 |
| crown-clinical-cpms.xsd | FluidWeightManagement | hasLeftVentricularHypertrophy | xsd:boolean | Presence of Left Ventricular Hypertrophy | RQMT_1124 |
| crown-clinical-cpms.xsd | FluidWeightManagement | leftVentricularHypertrophyChanged | xsd:boolean | Change in Left Ventricular Hypertrophy | RQMT_1125 |
| crown-clinical-cpms.xsd | Hospitalization | hospitalizationId | xsd:string | HospitalizationID | N/A |
| crown-clinical-cpms.xsd | Hospitalization | hospital | xsd:string | Hospital Name | RQMT_1126 |
| crown-clinical-cpms.xsd | Hospitalization | admissionDate | xsd:date | Hospital Admission Date | RQMT_1027 |
| crown-clinical-cpms.xsd | Hospitalization | admissionDiagnosis | Diagnosis | Hospital Admission Diagnosis | RQMT_1029 |
| crown-clinical-cpms.xsd | Hospitalization | dischargeDate | xsd:date | Hospital Discharge Date | RQMT_1028 |
| crown-clinical-cpms.xsd | Hospitalization | dischargeDiagnosis | ListedDischargeDiagnosisType | Hospital Discharge Diagnosis | RQMT_1030 |
| crown-clinical-cpms.xsd | Hospitalization | directFromDialysisFacility | xsd:boolean | Hospital Admission from Dialysis Facility | RQMT_1031 |
| crown-clinical-cpms.xsd | Hospitalization | visit | HospitalVisit | All Hospital Visits | RQMT_1026 |
| crown-clinical-cpms.xsd | Hospitalization | advanceDirective | AdvanceDirective | Advance Directive | RQMT_1127 |
| crown-clinical-cpms.xsd | Hospitalization | hospitalAdmitInfoSource | HospitalAdmitInfoSource | Source of Hospital Admission Information | RQMT_1032 |
| crown-clinical-cpms.xsd | Hospitalization | isTransplantReferral | xsd:boolean | Transplant Referral | RQMT_1128 |
| crown-clinical-cpms.xsd | Hospitalization | isTransplantWaitlist | xsd:boolean | Transplant Waiting List | RQMT_1129 |
| crown-clinical-cpms.xsd | Hospitalization | isPresumptiveDiagnosis | xsd:boolean | Hospitalization Due to Presumptive Diagnosis | RQMT_1130 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------------|--------------------|----------------------------------|-------------------------------|---|----------------|
| crown-clinical-cpms.xsd | Vaccinations | hepatitisBVaccineNotGiven | xsd:boolean | Vaccination Exclusion Type | RQMT_1110 |
| crown-clinical-cpms.xsd | Vaccinations | hepatitisB | HepatitisB | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical-cpms.xsd | Vaccinations | hepatitisC | HepatitisC | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical-cpms.xsd | Vaccinations | influenzaVaccineNotGiven | xsd:boolean | Vaccination Exclusion Type | RQMT_1110 |
| crown-clinical-cpms.xsd | Vaccinations | influenza | Vaccination | Influenza Vaccination date | RQMT_990 |
| crown-clinical-cpms.xsd | Vaccinations | PneumococcalVaccineNotGiven | xsd:boolean | Vaccination Exclusion Type | RQMT_1110 |
| crown-clinical-cpms.xsd | Vaccinations | pneumococcal | Vaccination | Pneumococcal Vaccination date | RQMT_995 |
| crown-clinical-cpms.xsd | Infection | infectionId | xsd:string | InfectionId | N/A |
| crown-clinical-cpms.xsd | Infection | confirmedDate | xsd:date | Date Vascular Access Infection Confirmed | RQMT_1057 |
| crown-clinical-cpms.xsd | Infection | identification | ListedInfectionIdentification | Method of Identifying Vascular Access Infection | RQMT_1033 |
| crown-clinical-cpms.xsd | Infection | infectionSource | InfectionSource | Source of Vascular Infection | RQMT_1037 |
| crown-clinical-cpms.xsd | Infection | newSuspectedInfection | xsd:boolean | New Suspected Infection | RQMT_1063 |
| crown-clinical-cpms.xsd | Infection | newlySuspectedDate | xsd:date | Date of Newly Suspected Infection | RQMT_1201 |
| crown-clinical-cpms.xsd | Infection | infectionSite | AccessInfectionSite | Infection type | RQMT_1036 |
| crown-clinical-cpms.xsd | Infection | outpatientAntibioticsAdminstered | xsd:boolean | Antibiotic Therapy Prescribed | RQMT_1040 |
| crown-clinical-cpms.xsd | Infection | outpatientAntibiotics | OutpatientAntibiotics | Antibiotic Therapy Prescribed | RQMT_1040 |
| crown-clinical-cpms.xsd | Infection | isHospitalizationReqd | xsd:boolean | Infection Requires Hospitalization | RQMT_1202 |
| crown-clinical-cpms.xsd | IronCpm | ivPrescribed | xsd:boolean | Intravenous (IV) Iron Prescribed | RQMT_313 |
| crown-clinical-cpms.xsd | IronCpm | ivIron | IVIron | Intravenous (IV) Iron | RQMT_981 |
| crown-clinical-cpms.xsd | IronCpm | poPrescribed | xsd:boolean | Oral (PO) Iron Prescribed | RQMT_984 |
| crown-clinical-cpms.xsd | IronCpm | poIron | POIron | Oral (PO) Iron | RQMT_985 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------------|--------------------|-----------------------------|-------------------------|---|------------------------|
| crown-clinical-cpms.xsd | VitaminDCpm | nonOralPrescribed | xsd:boolean | Non-Oral Vitamin D Analog Prescribed | RQMT_1013 |
| crown-clinical-cpms.xsd | VitaminDCpm | nonOralVitaminD | NonOralVitaminD | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical-cpms.xsd | VitaminDCpm | oralPrescribed | xsd:boolean | Oral Vitamin D Analog Rx Prescribed | RQMT_1017 |
| crown-clinical-cpms.xsd | VitaminDCpm | oralVitaminD | OralVitaminD | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical-cpms.xsd | VitaminDCpm | parathyroidHormone | ParathyroidHormone | Serum Parathyroid Hormone Type (iPTH) | RQMT_1012 |
| crown-clinical-cpms.xsd | NonOralVitaminD | analog | NonOralVitaminDAnalog | Non-oral Vitamin D Analog | RQMT_1014 |
| crown-clinical-cpms.xsd | NonOralVitaminD | route | ListedDeliveryRouteOnly | Non-Oral Vitamin D Analog Route | RQMT_1016 |
| crown-clinical-cpms.xsd | NonOralVitaminD | dose | xsd:decimal | Non-Oral Vitamin D Analog Rx Dose | RQMT_1015 |
| crown-clinical-cpms.xsd | OralVitaminD | analog | OralVitaminDAnalog | Oral Vitamin D Analog | RQMT_1018 |
| crown-clinical-cpms.xsd | OralVitaminD | dose | xsd:decimal | Vitamin D Analog Rx Dose | RQMT_1019 |
| crown-clinical-cpms.xsd | OralVitaminD | doseMeasure | DoseMeasure | Vitamin D Analog Rx Dose Measure | RQMT_1019 |
| crown-clinical-cpms.xsd | HKtVInfo | method | HKtVMethod | Kt/V Hemodialysis Method | RQMT_323 |
| crown-clinical-cpms.xsd | HKtVInfo | hgt | Height | Patient Height | RQMT_338 |
| crown-clinical-cpms.xsd | HKtVInfo | bun | Bun | N/A: Organize and support consistency among other data elements | N/A |
| crown-clinical-cpms.xsd | HKtVInfo | interdialyticTime | xsd:string | Interdialytic Time | RQMT_1059 |
| crown-clinical-cpms.xsd | HKtVInfo | nPCR | NPCRValue | Normalized Protein Catabolic (nPCR) and Collection Date | RQMT_1009 RQMT_1010 |
| crown-clinical-cpms.xsd | HKtVInfo | residualUreaClearance | xsd:decimal | Residual Urea Clearance for HD | RQMT_1065 |
| crown-clinical-cpms.xsd | Bun | bunPreDialysis | xsd:int | BUN Pre-Dialysis | RQMT_330 |
| crown-clinical-cpms.xsd | Bun | preDialysisWgt | xsd:decimal | Pre-Dialysis Weight | RQMT_332 |
| crown-clinical-cpms.xsd | Bun | preDialysisWgtUnit | WeightUnit | Pre-Dialysis Weight Unit of Measure | RQMT_333 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------------|--------------------|-----------------------------|------------------|---|------------------------|
| crown-clinical-cpms.xsd | Bun | bunPostDialysis | xsd:int | BUN Post-Dialysis | RQMT_331 |
| crown-clinical-cpms.xsd | Bun | postDialysisWgt | xsd:decimal | Post-Dialysis Weight | RQMT_334 |
| crown-clinical-cpms.xsd | Bun | postDialysisWgtUnit | WeightUnit | Post-Dialysis Weight Unit of Measure | RQMT_335 |
| crown-clinical-cpms.xsd | Bun | bunSessionMinutes | xsd:int | Delivered Minutes of BUN Hemodialysis Session | RQMT_337 |
| crown-clinical-cpms.xsd | PKtVInfo | ktV | PKtV | Weekly Kt/V Peritoneal Dialysis | RQMT_325 |
| crown-clinical-cpms.xsd | PKtVInfo | nPCR | NPCRValue | Normalized Protein Catabolic (nPCR) and Collection Date | RQMT_1009 RQMT_1010 |
| crown-clinical-cpms.xsd | PKtVInfo | dun | xsd:decimal | Dialysate Urea Nitrogen | RQMT_345 |
| crown-clinical-cpms.xsd | PKtVInfo | urea | xsd:decimal | Urine Urea Nitrogen | RQMT_348 |
| crown-clinical-cpms.xsd | PKtVInfo | ucr | xsd:decimal | Urine Creatinine | RQMT_349 |
| crown-clinical-cpms.xsd | PKtVInfo | dcr | xsd:decimal | Dialysate Creatinine | RQMT_346 |
| crown-clinical-cpms.xsd | PKtVInfo | serBun | xsd:int | Serum BUN | RQMT_350 |
| crown-clinical-cpms.xsd | PKtVInfo | dialVol | xsd:int | Dialysate Volume | RQMT_344 |
| crown-clinical-cpms.xsd | PKtVInfo | urineVol | xsd:int | Urine Volume | RQMT_347 |
| crown-clinical-cpms.xsd | PKtVInfo | wgt | Weight | Clinic Weight | RQMT_340 |
| crown-clinical-cpms.xsd | PKtVInfo | bsac | xsd:boolean | BSA Corrected | RQMT_342 |
| crown-clinical-cpms.xsd | PKtVInfo | crc | CrcValue | Creatinine Clearance | RQMT_343 |
| crown-clinical-cpms.xsd | PKtVInfo | hgt | Height | Patient Height | RQMT_338 |
| crown-clinical-cpms.xsd | PKtV | value | xsd:decimal | Weekly Kt/V Peritoneal Dialysis | RQMT_325 |
| crown-clinical-cpms.xsd | PKtV | date | xsd:date | Date of PD Adequacy Measurement | RQMT_324 |
| crown-clinical-cpms.xsd | PKtV | method | PKtVMethod | Kt/V Peritoneal Dialysis Method | RQMT_326 |
| crown-clinical-cpms.xsd | PKtV | bsaMethod | BsaMethod | Body Surface Area Method | RQMT_327 |
| crown-clinical-cpms.xsd | PKtV | rrf | xsd:boolean | Residual Renal Function Assessed in Calculating Kt/V? | RQMT_328 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------------|--------------------------|-----------------------------|----------------------------------|---|----------------|
| crown-clinical-cpms.xsd | PKtV | pca | xsd:boolean | Treatment Changed? | RQMT_329 |
| crown-clinical-cpms.xsd | BloodCulture | result | Polarity | Blood Culture Result | RQMT_1038 |
| crown-clinical-cpms.xsd | BloodCulture | cultureDate | xsd:date | Blood Culture Date | RQMT_1132 |
| crown-clinical-cpms.xsd | BloodCulture | organisms | xsd:string | Indicate Organism(s) of Positive Culture | RQMT_1039 |
| crown-clinical-cpms.xsd | OutpatientAntibiotics | antibiotic | Prescription | Antibiotic Name | RQMT_1041 |
| crown-clinical-cpms.xsd | OutpatientAntibiotics | sepsis | xsd:boolean | Symptoms of Clinical Sepsis | RQMT_1205 |
| crown-clinical-cpms.xsd | OutpatientAntibiotics | softTissue | xsd:boolean | Signs of Soft Tissue Infection | RQMT_1206 |
| crown-clinical-cpms.xsd | OutpatientAntibiotics | dialysate | ListedDialysisType | Peritoneal Dialysate Culture Result | RQMT_1207 |
| crown-clinical-cpms.xsd | OutpatientAntibiotics | effluent | ListedEffluentType | Result of Peritoneal Dialysis Effluent Analysis | RQMT_1208 |
| crown-clinical-cpms.xsd | OutpatientAntibiotics | bloodCulture | BloodCulture | Blood Culture Result | RQMT_1038 |
| crown-clinical-cpms.xsd | OutpatientAntibiotics | hospitalizationDate | xsd:date | Infection Hospitalization Date | RQMT_1209 |
| crown-clinical-cpms.xsd | ListedDialysateType | | enumeration: true, false, absent | Peritoneal Dialysate Culture Result | RQMT_1207 |
| crown-clinical-cpms.xsd | ListedVascularAccessType | | enumeration: true, false, absent | Result of Peritoneal Dialysis Effluent Analysis | RQMT_1208 |
| crown-clinical-cpms.xsd | HepatitisB | testType | HepBTestType | Hepatitis B Test Type (HBsAg) | RQMT_1000 |
| crown-clinical-cpms.xsd | HepatitisB | testDate | xsd:date | Hepatitis B (HBsAg) Test Date | RQMT_1021 |
| crown-clinical-cpms.xsd | HepatitisB | vaccinationDate1 | xsd:date | Hepatitis B Vaccination Dates1 | RQMT_1003 |
| crown-clinical-cpms.xsd | HepatitisB | vaccinationDate2 | xsd:date | Hepatitis B Vaccination Dates2 | RQMT_1003 |
| crown-clinical-cpms.xsd | HepatitisB | vaccinationDate3 | xsd:date | Hepatitis B Vaccination Dates3 | RQMT_1003 |
| crown-clinical-cpms.xsd | HepatitisB | vaccinationDate4 | xsd:date | Hepatitis B Vaccination Dates4 | RQMT_1003 |
| crown-clinical-cpms.xsd | HepatitisB | boosterDate1 | xsd:date | Hepatitis B Booster Dates1 | RQMT_1022 |
| crown-clinical-cpms.xsd | HepatitisB | boosterDate2 | xsd:date | Hepatitis B Booster Dates2 | RQMT_1022 |
| crown-clinical-cpms.xsd | HepatitisB | boosterDate3 | xsd:date | Hepatitis B Booster Dates3 | RQMT_1022 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------------|--|-----------------------------|--------------------|---|----------------|
| crown-clinical-cpms.xsd | HepatitisB | boosterDate4 | xsd:date | Hepatitis B Booster Dates4 | RQMT_1022 |
| crown-clinical-cpms.xsd | HepatitisB | exclusion | Exclusion | Reason No Hepatitis B Immunization | RQMT_1110 |
| crown-clinical-cpms.xsd | HepatitisB | exclusion.medical | ExclusionMedical | Hepatitis B Medical Reasons | RQMT_1111 |
| crown-clinical-cpms.xsd | HepatitisB | exclusion.patient | ExclusionPatient | Hepatitis B Patient Reasons | RQMT_1111 |
| crown-clinical-cpms.xsd | HepatitisB | antiHBs | AntiHBs | Anti-HBs (mIU/mL) | RQMT_1001 |
| crown-clinical-cpms.xsd | AntiHBs | testResult | xsd:decimal | Anti-HBs | RQMT_1001 |
| crown-clinical-cpms.xsd | AntiHBs | testDate | xsd:date | Anti-HBs Date Performed | RQMT_1002 |
| crown-clinical-cpms.xsd | HepatitisC | testType | HepCTestType | Hepatitis C screening Tests | RQMT_1024 |
| crown-clinical-cpms.xsd | HepatitisC | testDate | xsd:date | Hepatitis C Screening Test Date | RQMT_1025 |
| crown-clinical-cpms.xsd | ParathyroidHormone | iPth | PTH | Serum Parathyroid Hormone Type (iPTH) | RQMT_1012 |
| crown-clinical-cpms.xsd | ParathyroidHormone | collectionDate | xsd:date | Serum Parathyroid Hormone (PTH) Collection Date | RQMT_989 |
| crown-clinical-cpms.xsd | ParathyroidHormone | pthValue | xsd:decimal | Serum Parathyroid Hormone (PTH) Value | RQMT_988 |
| crown-clinical-cpms.xsd | ParathyroidHormone Please do not send this element. It is to be removed from the XSD. | pthMeasure | LabMeasure | Serum Parathyroid Hormone (PTH) Value | RQMT_988 |
| crown-clinical-cpms.xsd | NPCRValue | value | xsd:decimal | Normalized Protein Catabolic (nPCR) Rate | RQMT_1009 |
| crown-clinical-cpms.xsd | NPCRValue | date | date | Normalized Protein Catabolic (nPCR) Collection Date | RQMT_1010 |
| crown-clinical-cpms.xsd | VascularAccess | accessType | VascularAccessType | Access Type for Dialysis | RQMT_395 |
| crown-clinical-cpms.xsd | VascularAccess | accessDate | xsd:date | Date Access Type for Dialysis Changed | RQMT_1138 |
| crown-clinical-cpms.xsd | VascularAccess | dxSessDate | xsd:date | Date of Reported Dialysis Session | RQMT_399 |
| crown-clinical-cpms.xsd | VascularAccess | avfCreateDate | xsd:date | AVF Creation Date | RQMT_1139 |
| crown-clinical-cpms.xsd | VascularAccess | avfUseDate | xsd:date | AVF Usable Date | RQMT_401 |
| crown-clinical-cpms.xsd | VascularAccess | avfMaturing | xsd:boolean | Maturing AVF Present? | RQMT_396 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------------|--------------------------|---|---|-----------------------------|----------------|
| crown-clinical-cpms.xsd | VascularAccess | avfState | AvState | AV Fistula State | RQMT_402 |
| crown-clinical-cpms.xsd | VascularAccess | avgMaturing | xsd:boolean | Maturing Graft Present? | RQMT_397 |
| crown-clinical-cpms.xsd | VascularAccess | avgState | AvState | AV Graft State | RQMT_403 |
| crown-clinical-cpms.xsd | VascularAccess | survey | xsd:boolean | Graft Survey | RQMT_408 |
| crown-clinical-cpms.xsd | VascularAccess | exam | AnswerFrequencyA | Access Physical Examination | RQMT_404 |
| crown-clinical-cpms.xsd | VascularAccess | ppp | AnswerFrequencyA | Pre Pump Pressure | RQMT_406 |
| crown-clinical-cpms.xsd | VascularAccess | svp | AnswerFrequencyB | Static Venous Pressure | RQMT_409 |
| crown-clinical-cpms.xsd | VascularAccess | dop | AnswerFrequencyB | Doppler | RQMT_411 |
| crown-clinical-cpms.xsd | VascularAccess | iaf | AnswerFrequencyB | Intra-Access Flow | RQMT_413 |
| crown-clinical-cpms.xsd | VascularAccess | action "action" currently not used by the system except for Medication Allergy section | Action {declare} | N/A - System Action | N/A |
| crown-clinical-cpms.xsd | VascularAccessType | listed | ListedVascularAccessType | Access Type for Dialysis | RQMT_395 |
| crown-clinical-cpms.xsd | VascularAccessType | other Other is not currently collected by the CROWN system for this field. Do not use. | xsd:string | Access Type for Dialysis | RQMT_395 |
| crown-clinical-cpms.xsd | ListedVascularAccessType | | enumeration: AVFonly, AVFwAVG, AVFwCatheter, AVGonly, AVGwCatheter, CatheterOnly, PortOnly, Other | Access Type for Dialysis | RQMT_395 |
| crown-clinical-cpms.xsd | AvState | | enumeration: NotPresent, Created, Active, Inactive, Removed | AV Fistula State | RQMT_402 |
| crown-clinical-cpms.xsd | AvState | | enumeration: NotPresent, Created, Active, Inactive, Removed | AV Graft State | RQMT_403 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------------|-------------------------|--|--|-------------------------------|----------------|
| crown-clinical-cpms.xsd | BPStatus | | enumeration: Low, High, Deviation | Home Blood Pressure Status | RQMT_1119 |
| crown-clinical-cpms.xsd | HospitalVisit | | enumeration: ER, Hospitalization, ERResultingHospitalization | All Hospital Visits | RQMT_1026 |
| crown-clinical-cpms.xsd | AdvanceDirective | | enumeration: DNR, DNI | Advance Directive | RQMT_1127 |
| crown-clinical-cpms.xsd | AccessInfectionSite | | enumeration: Uncuffed, Fistula, Tunneled, Graft, Catheter, Not Access Related | Infection Type | RQMT_1036 |
| crown-clinical-cpms.xsd | MedicationAllergy | listed | ListedMedicationAllergy | Medication Allergies | RQMT_1050 |
| crown-clinical-cpms.xsd | MedicationAllergy | other | xsd:string | Other Medication Allergies | RQMT_1219 |
| crown-clinical-cpms.xsd | MedicationAllergy | action <i>This is currently the only "action" used in the schema. (Simple Type)</i> | Action {declare} | N/A - System Action | N/A |
| crown-clinical-cpms.xsd | ListedMedicationAllergy | | enumeration: Epoetin alfa, Epoetin beta, Darbepoetin alfa, Iron dextran, Sodium ferric gluconate, Iron sucrose, Ferrous fumarate, Ferrous sulfate, Calcitriol, Paricalcitol, Doxercalciferol, None known | Medication Allergies | RQMT_1050 |
| crown-clinical-cpms.xsd | ESAAGENT | listed | ListedESAAGENT | ESA Agent Prescribed | RQMT_976 |
| crown-clinical-cpms.xsd | ESAAGENT | other | xsd:string | Other ESA Agent | RQMT_1220 |
| crown-clinical-cpms.xsd | ListedESAAGENT | | enumeration: Epoetin alfa, Epoetin beta, Darbepoetin alfa | ESA Agent Prescribed | RQMT_976 |
| crown-clinical-cpms.xsd | HepBTestType | listed | ListedHepBTestType | Hepatitis B Test Type (HBsAg) | RQMT_1000 |
| crown-clinical-cpms.xsd | HepBTestType | other | xsd:string | Other Hepatitis B Test Type | RQMT_1224 |
| crown-clinical-cpms.xsd | ListedHepBTestType | | enumeration: HBsAg, Anti-HBc, Anti-HBs, IgM Anti-HBc | Hepatitis B Test Type | RQMT_1000 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------------|-------------------------------|-----------------------------|--|---|----------------|
| crown-clinical-cpms.xsd | HepCTestType | listed | ListedHepCTestType | Hepatitis C screening Tests | RQMT_1024 |
| crown-clinical-cpms.xsd | HepCTestType | other | xsd:string | Other Hepatitis C Screening Tests | RQMT_1225 |
| crown-clinical-cpms.xsd | ListedHepCTestType | | enumeration: EIA, CIA, RIBA | Hepatitis C screening Tests | RQMT_1024 |
| crown-clinical-cpms.xsd | Diagnosis | listed | ListedDiagnosis | Hospital Admission Diagnosis | RQMT_1029 |
| crown-clinical-cpms.xsd | Diagnosis | other | xsd:string | Other Hospital Admission Diagnosis | RQMT_1222 |
| crown-clinical-cpms.xsd | ListedDiagnosis | | enumeration: Cardiovascular, Neurological, Musculoskeletal, Respiratory, Genitourinary, Gastrointestinal, Endocrine, Sepsis, Vascular Access | Hospital Admission Diagnosis | RQMT_1029 |
| crown-clinical-cpms.xsd | ListedDischargeDiagnosisType | | enumeration: 042, 1890, 1899, 20280, 20300, 20308, 2230, 2293, 23951, 23952, 25040, 25041, 2700, 2718, 2727, 27410, 27549, 2773, 28260, 28269, 28311, 2870, 40391, 4401, 4460, 44620, 44621, 4464, 5724, 5800, 58089, 5820, 5821, 5829, 5830, 5831, 58321, 58322, 5834, 5836, 58381, 58382, 58389, 5839, 58391, 58392, 5900, 5909, 5920, 5929, 59381, 59383, 59389, 5996, 64620, 7100, 7101, 7530, 75313, 75314, 75316, 75321, 75322, 75329, 7533, 75671, 7595, 7598, 75989, 7999, 8660, 9659, 9849, 99680, 99681, 99682, 99683, 99684, 99685, 99686, 99687, 99689 | Hospital Discharge Diagnosis | RQMT_1030 |
| crown-clinical-cpms.xsd | ListedInfectionIdentification | | enumeration: Clinical suspicion, Previous facility | Method of Identifying Vascular Access Infection | RQMT_1033 |
| crown-clinical-cpms.xsd | IVIron | listed | ListedIVIron | Intravenous (IV) Iron | RQMT_981 |
| crown-clinical-cpms.xsd | IVIron | other | xsd:string | Other Intravenous (IV) Iron | RQMT_1227 |
| crown-clinical-cpms.xsd | IVIron | dose | xsd:decimal | (IV)Iron Dose | RQMT_982 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------------|--|---|--|---------------------------------|----------------|
| crown-clinical-cpms.xsd | IVIron | doseMeasure | DoseMeasure | Other Iron Dose Measure | RQMT_1227 |
| crown-clinical-cpms.xsd | IVIron | date | xsd:date | Iron Dose Date | |
| crown-clinical-cpms.xsd | ListedIVIron | | enumeration: Dextran, Gluconate, Sucrose | Intravenous (IV) Iron | RQMT_981 |
| crown-clinical-cpms.xsd | POIron | listed | ListedPOIron | Oral (PO) Iron | RQMT_985 |
| crown-clinical-cpms.xsd | POIron | other | xsd:string | Other Oral (PO) Iron | RQMT_1228 |
| crown-clinical-cpms.xsd | POIron | dose | xsd:string | Oral (PO) Iron Dose | RQMT_986 |
| crown-clinical-cpms.xsd | POIron | doseMeasure | DoseMeasure {IU, mg} | Oral (PO) Iron Dose | RQMT_986 |
| crown-clinical-cpms.xsd | POIron Please do not send this element. It is to be removed from the XSD. | date | xsd:date | Iron Dose Date | N/A |
| crown-clinical-cpms.xsd | ListedPOIron | | enumeration: Fumarate, Sulfate, Gluconate | Oral (PO) Iron | RQMT_985 |
| crown-clinical-cpms.xsd | NonOralVitaminDAnalog | listed | ListedNonOralVitaminDAnalog | Non-Oral Vitamin D Analog | RQMT_1014 |
| crown-clinical-cpms.xsd | NonOralVitaminDAnalog | other | xsd:string | Other Non-Oral Vitamin D Analog | RQMT_1230 |
| crown-clinical-cpms.xsd | ListedNonOralVitaminDAnalog | | enumeration: Calcitriol, Doxercalciferol, Paricalcitol | Non-Oral Vitamin D Analog | RQMT_1014 |
| crown-clinical-cpms.xsd | OralVitaminDAnalog | listed | ListedOralVitaminDAnalog | Oral Vitamin D Analog | RQMT_1018 |
| crown-clinical-cpms.xsd | OralVitaminDAnalog | other | xsd:string | Other Oral Vitamin D Analog | RQMT_1231 |
| crown-clinical-cpms.xsd | ListedOralVitaminDAnalog | | enumeration: Calderol, DeltaD3, DHT Intensol, DHT, Drisdol, Hectorol, Rocaltrol, D3, D2, Zemplar | Oral Vitamin D Analog | RQMT_1018 |
| crown-clinical-cpms.xsd | HKtVMethod | listed | ListedHKtVMethod | Kt/V Hemodialysis Method | RQMT_323 |
| crown-clinical-cpms.xsd | HKtVMethod | other Other is not currently collected by the CROWN system for this field. Do not use. | xsd:string | Kt/V Hemodialysis Method | RQMT_323 |
| crown-clinical-cpms.xsd | ListedHKtVMethod | | enumeration: UKM, Daugirdas2, Depner, URR | Kt/V Hemodialysis Method | RQMT_323 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------------|-----------------------|---|--|---|----------------|
| crown-clinical-cpms.xsd | PKtVMethod | listed | ListedPKtVMethod | Kt/V Peritoneal Dialysis Method | RQMT_326 |
| crown-clinical-cpms.xsd | PKtVMethod | other Other is not currently collected by the CROWN system for this field. Do not use. | xsd:string | Kt/V Peritoneal Dialysis Method | RQMT_326 |
| crown-clinical-cpms.xsd | ListedPKtVMethod | | enumeration: PercentBodyWgt, Hume, Watson | Kt/V Peritoneal Dialysis Method | RQMT_326 |
| crown-clinical-cpms.xsd | PTH | listed | ListedPTH | Serum Parathyroid Hormone Type (iPTH) | RQMT_1012 |
| crown-clinical-cpms.xsd | PTH | other | xsd:string | Other Serum Parathyroid Hormone Type (iPTH) | |
| crown-clinical-cpms.xsd | ListedPTH | | enumeration: iPTH, NA | Serum Parathyroid Hormone Type (iPTH) | RQMT_1012 |
| crown-clinical-cpms.xsd | InfectionSource | listed | ListedInfectionSource | Source of Vascular Infection | RQMT_1037 |
| crown-clinical-cpms.xsd | InfectionSource | other | xsd:string | Other Source of Vascular Infection | RQMT_1236 |
| crown-clinical-cpms.xsd | ListedInfectionSource | | enumeration: Blood, Wound, Vascular access | Source of Vascular Infection | RQMT_1037 |
| crown-clinical-cpms.xsd | LabValues | hgb | HgbValue | Hemoglobin | RQMT_303 |
| crown-clinical-cpms.xsd | LabValues | fer | FerValue | Serum Ferritin | RQMT_307 |
| crown-clinical-cpms.xsd | LabValues | tsat | TsatValue | Iron Saturation (TSAT) Percentage | RQMT_309 |
| crown-clinical-cpms.xsd | LabValues | chr | ChrValue | Reticulocyte Hemoglobin (CHr) | RQMT_311 |
| crown-clinical-cpms.xsd | LabValues | phos | PhosValue | Serum Phosphorus | RQMT_315 |
| crown-clinical-cpms.xsd | LabValues | cca | CcaValue | Corrected Serum Calcium | RQMT_317 |
| crown-clinical-cpms.xsd | LabValues | uca | UcaValue | Uncorrected Serum Calcium | RQMT_319 |
| crown-clinical-cpms.xsd | LabValues | alb | AlbValue | Serum Albumin | RQMT_296 |
| crown-clinical-cpms.xsd | LabValues | cre | CreValue | Serum Creatinine | RQMT_300 |
| crown-clinical-cpms.xsd | HgbValue | value | DecimalDateGroup | Hemoglobin Value | RQMT_303 |
| crown-clinical-cpms.xsd | HgbValue | date | DecimalDateGroup | Hemoglobin Collection Date | RQMT_304 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------------|--------------------|-----------------------------|-----------------------|---|----------------|
| crown-clinical-cpms.xsd | FerValue | value | IntDateGroup | Serum Ferritin Value | RQMT_307 |
| crown-clinical-cpms.xsd | FerValue | date | IntDateGroup | Serum Ferritin Collection Date | RQMT_308 |
| crown-clinical-cpms.xsd | TsatValue | value | IntDateGroup | Iron Saturation (TSAT) Percentage Value | RQMT_309 |
| crown-clinical-cpms.xsd | TsatValue | date | IntDateGroup | Iron Saturation (TSAT) Percentage Collection Date | RQMT_310 |
| crown-clinical-cpms.xsd | ChrValue | value | IntDateGroup | Reticulocyte Hemoglobin (Chr) Value | RQMT_311 |
| crown-clinical-cpms.xsd | ChrValue | date | IntDateGroup | Reticulocyte Hemoglobin (Chr) Collection Date | RQMT_312 |
| crown-clinical-cpms.xsd | PhosValue | value | DecimalDateGroup | Serum Phosphorus Value | RQMT_315 |
| crown-clinical-cpms.xsd | PhosValue | date | DecimalDateGroup | Serum Phosphorus Collection Date | RQMT_316 |
| crown-clinical-cpms.xsd | CcaValue | value | DecimalDateGroup | Corrected Serum Calcium Value | RQMT_317 |
| crown-clinical-cpms.xsd | CcaValue | date | DecimalDateGroup | Corrected Serum Calcium Collection Date | RQMT_318 |
| crown-clinical-cpms.xsd | UcaValue | value | DecimalDateGroup | Uncorrected Serum Calcium Value | RQMT_319 |
| crown-clinical-cpms.xsd | UcaValue | date | DecimalDateGroup | Uncorrected Serum Calcium Collection Date | RQMT_320 |
| crown-clinical-cpms.xsd | AlbValue | method | AlbMethod | Lab Method (for Serum Albumin) | RQMT_299 |
| crown-clinical-cpms.xsd | AlbValue | lowValue | xsd:decimal | Serum Albumin Lower Limit | RQMT_298 |
| crown-clinical-cpms.xsd | AlbValue | value | DecimalDateGroup | Serum Albumin Value | RQMT_296 |
| crown-clinical-cpms.xsd | AlbValue | date | DecimalDateGroup | Serum Albumin Collection Date | RQMT_297 |
| crown-clinical-cpms.xsd | CreValue | value | DecimalDateGroup | Serum Creatinine Value | RQMT_300 |
| crown-clinical-cpms.xsd | CreValue | date | DecimalDateGroup | Serum Creatinine Collection Date | RQMT_301 |
| crown-clinical-cpms.xsd | CrcValue | value | xsd:decimal | Creatinine Clearance | RQMT_343 |
| crown-clinical-cpms.xsd | CrcValue | unit | CrcUnit | Creatinine Clearance Method | RQMT_746 |
| crown-clinical-cpms.xsd | AlbMethod | | enumeration: BCG, BCP | Lab Method (for Serum Albumin) | RQMT_299 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|--------------------------------|--------------------|---|-----------------------------|--|----------------|
| crown-clinical-cpms.xsd | BsaMethod | listed | ListedBsaMethod | Body Surface Area Method | RQMT_327 |
| crown-clinical-cpms.xsd | BsaMethod | other Other is not currently collected by the CROWN system for this field. Do not use. | xsd:string | Body Surface Area Method | RQMT_327 |
| crown-clinical-cpms.xsd | ListedBsaMethod | | enumeration: DuBoisDuBois | Body Surface Area Method | RQMT_327 |
| crown-clinical-cpms.xsd | CrcUnit | | enumeration: LWK, LWK173M2 | Creatinine Clearance Method | RQMT_746 |
| crown-global.xsd | Address | street1 | NonEmptyString | Patient Street Address (Mailing) | RQMT_123 |
| crown-global.xsd | Address | street1 | NonEmptyString | Patient Address (Physical) | RQMT_139 |
| crown-global.xsd | Address | street2 | NonEmptyString | Patent Street Address 2 (Mailing) | RQMT_124 |
| crown-global.xsd | Address | street2 | NonEmptyString | Patient Address 2 (Physical) | RQMT_140 |
| crown-global.xsd | Address | city | NonEmptyString | Patient City (Mailing) | RQMT_125 |
| crown-global.xsd | Address | city | NonEmptyString | Patient City (Physical) | RQMT_141 |
| crown-global.xsd | Address | state | State | Patient State of Residence | RQMT_122 |
| crown-global.xsd | Address | state | State | (Mailing) and (Physical) | RQMT_138 |
| crown-global.xsd | Address | zip | ZipCode | Patient Zip Code (Mailing) | RQMT_126 |
| crown-global.xsd | Address | zip | ZipCode | Patient Zip Code (Physical) | RQMT_143 |
| crown-global.xsd | Address | zipExt | ZipCodeExt | Patient + 4 Zip Code (Mailing) | RQMT_127 |
| crown-global.xsd | Address | zipExt | ZipCodeExt | Patient + 4 Zip Code (physical) | RQMT_144 |
| crown-global.xsd | Address | county | NonEmptyString | Patient County (Physical) | RQMT_142 |
| crown-global.xsd | Address | addressType | AddressType | N/A: Organize and support consistency among other data elements. | N/A |
| crown-global.xsd | AreaCode | | xsd:string | Phone Number Area code | Unavailable |
| crown-global.xsd | DialysisPeriod | | enumeration: Day, Nocturnal | Dialysis Time Period | RQMT_1073 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|-------------------------|--------------------|-----------------------------|----------------------------------|--|----------------|
| crown-global.xsd | IntervalUnit | | enumeration: DHM, Hours, Minutes | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | MonthYearGroup | month | Month | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | MonthYearGroup | year | xsd:int | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | Period | | MonthYearGroup | N/A: Organize and support consistency among other data elements. | N/A |
| crown-global.xsd | Period | date | xsd:date | N/A: Organize and support consistency among other data elements. | N/A |
| crown-global.xsd | Phone | areaCode | AreaCode | Phone Number Area code | Unavailable |
| crown-global.xsd | Phone | phoneNumber | PhoneNumber | Patient Home Phone Number | RQMT_145 |
| crown-global.xsd | Phone | phoneNumber | PhoneNumber | Patient Work Phone Number | RQMT_146 |
| crown-global.xsd | Phone | phoneNumber | PhoneNumber | Patient Cell Phone Number | RQMT_148 |
| crown-global.xsd | Phone | ext | NonEmptyString | Phone Number Extension | Unavailable |
| crown-global.xsd | Phone | type | PhoneType | N/A: Organize and support consistency among other data elements. | N/A |
| crown-global.xsd | PhoneNumber | | xsd:string | Patient Home Phone Number | RQMT_145 |
| crown-global.xsd | PhoneNumber | | xsd:string | Patient Work Phone Number | RQMT_146 |
| crown-global.xsd | PhoneNumber | | xsd:string | Patient Cell Phone Number | RQMT_148 |
| crown-global.xsd | Height | value | xsd:decimal | Patient Height | RQMT_338 |
| crown-global.xsd | Height | unit | LengthSmallUnit | Patient Height Unit of Measure | RQMT_339 |
| crown-global.xsd | Weight | value | xsd:decimal | Pre-Dialysis Weight | RQMT_332 |
| crown-global.xsd | Weight | unit | WeightUnit | Pre-Dialysis Weight Unit of Measure | RQMT_333 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|-------------------------|--------------------|-----------------------------|--|---|----------------|
| crown-global.xsd | ZipCode | | xsd:string | Address Zip Code | Unavailable |
| crown-global.xsd | ZipCodeExt | | xsd:string | Zip code extension | Unavailable |
| crown-global.xsd | Exclusion | medical | ExclusionMedical | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | Exclusion | patient | ExclusionPatient | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | ExclusionMedical | | enumeration: Allergic, Adverse, OtherMedical | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | ExclusionPatient | | enumeration: Cultural, Patient | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | Vaccination | whenGiven | xsd:date | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | Vaccination | month | Month | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | Vaccination | year | xsd:int | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | Vaccination | whereGiven | OnOffSite | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | Vaccination | exclusion | Exclusion | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | Prescription | agent | xsd:string | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | Prescription | rxDate | xsd:date | N/A: Organize and support consistency among other data elements | N/A |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|-------------------------|---------------------|-----------------------------|--|---|----------------|
| crown-global.xsd | Prescription | frequency | DoseFrequency | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | Prescription | route | MedicationRoute | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | Prescription | dose | xsd:decimal | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | Prescription | doseMeasure | DoseMeasure | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | SelfCareSetting | | enumeration: Home, Incenter | Expected Self-Care Setting | RQMT_1070 |
| crown-global.xsd | DoseMeasure | listed | ListedDoseMeasure | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | DoseMeasure | other | xsd:string | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | ListedDoseMeasure | | enumeration: units, IU, mcg, mg, g, Other | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | DoseFrequency | listed | ListedDoseFrequency | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | DoseFrequency | other | xsd:string | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | ListedDoseFrequency | | enumeration: QID, TID, BID, Daily, Weekly, Other | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | MedicationRoute | route | ListedMedicationRoute | N/A: Organize and support consistency among other data elements | N/A |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|-------------------------|-------------------------------|-----------------------------|---|---|----------------|
| crown-global.xsd | MedicationRoute | other | xsd:string | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | ListedMedicationRoute | | enumeration: Oral, IV, IM, Other | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | DeliveryRoute | listed | ListedDeliveryRoute | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | DeliveryRoute | other | xsd:string | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | ListedDeliveryRoute | | enumeration: IVP, SC, Other | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | ListedDeliveryRouteOnly | | enumeration: IVP, SC | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | LabMeasure | listed | ListedLabMeasure | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | LabMeasure | other | xsd:string | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | ListedLabMeasure | | enumeration: pg/mL, g/kg/day, mEq/L, g/dl, mg/dl, Other | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | HospitalAdmitInfoSource | listed | ListedHospitalAdmitInfoSource | Source of Hospital Admission Information | RQMT_1032 |
| crown-global.xsd | HospitalAdmitInfoSource | other | xsd:string | Source of Hospital Admission Information | RQMT_1032 |
| crown-global.xsd | ListedHospitalAdmitInfoSource | | enumeration: Database, Patient, Other | Source of Hospital Admission Information | RQMT_1032 |
| crown-global.xsd | AddressType | | enumeration: Mailing, Physical | N/A: Organize and support consistency among other data elements | N/A |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|-------------------------|-------------------------|-----------------------------|---|---|----------------|
| crown-global.xsd | NPI | | xsd:string | National Provider Identifier (NPI) | RQMT_12 |
| crown-global.xsd | NonEmptyString | | xsd:string | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | UPIN | | xsd:string | Personnel UPIN | RQMT_93 |
| crown-global.xsd | Action | | enumeration: declare, update, remove, retrieve | N/A - System Action | N/A |
| crown-global.xsd | SimpleAction | | enumeration: declare, remove | N/A - System Action | N/A |
| crown-global.xsd | Country | | values documented externally | Patient Country/Area of Origin or Ancestry | RQMT_747 |
| crown-global.xsd | LengthSmallUnit | | enumeration: Inch, Centimeter | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | Month | | enumeration: Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | OnOffSite | | enumeration: Onsite, Offsite | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | OrganizationAffiliation | | xsd: string | Organizational Affiliation | N/A |
| crown-global.xsd | PhoneType | | enumeration: Work, Tel, Fax, Mobile, Pager, Other | Patient Home Phone Number | RQMT_145 |
| crown-global.xsd | PhoneType | | enumeration: Work, Tel, Fax, Mobile, Pager, Other | Patient Work Phone Number | RQMT_146 |
| crown-global.xsd | PhoneType | | enumeration: Work, Tel, Fax, Mobile, Pager, Other | Patient Cell Phone Number | RQMT_148 |
| crown-global.xsd | Polarity | | enumeration: Positive, Negative, Unknown | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | State | | values documented externally | Patient State of Residence (Mailing) | RQMT_122 |
| crown-global.xsd | State | | values documented externally | Patient State of Residence (Physical) | RQMT_138 |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|-------------------------|--------------------------|-----------------------------|--|---|----------------|
| crown-global.xsd | WeightUnit | | enumeration: Pound, Kilogram | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | DialysisType | listed | ListedDialysisType | Type of Training | RQMT_367 |
| crown-global.xsd | DialysisType | other | xsd:string | Type of Training | RQMT_367 |
| crown-global.xsd | ListedDialysisType | | enumeration: Hemodialysis, CAPD, CCPD, Other | Type of Training | RQMT_367 |
| crown-global.xsd | MedicareEnrollmentStatus | | enumeration: Pending, NoCoverage, Coverage | Medicare Enrollment Status | RQMT_1071 |
| crown-global.xsd | AnswerFrequencyA | answered | xsd:boolean | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | AnswerFrequencyA | freq | FrequencyA | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | FrequencyA | listed | ListedFrequencyA | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | FrequencyA | other | xsd:string | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | ListedFrequencyA | | enumeration: PerTreatment, Weekly, Monthly | Access Physical Examination Frequency | RQMT_405 |
| crown-global.xsd | ListedFrequencyA | | enumeration: PerTreatment, Weekly, Monthly | Pre Pump Pressure Frequency | RQMT_407 |
| crown-global.xsd | AnswerFrequencyB | answered | xsd:boolean | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | AnswerFrequencyB | freq | FrequencyB | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | FrequencyB | listed | ListedFrequencyB | N/A: Organize and support consistency among other data elements | N/A |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|---------------------------|--------------------|-----------------------------|---|---|----------------|
| crown-global.xsd | FrequencyB | other | xsd:string | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | ListedFrequencyB | | enumeration: BiWeekly, Quarterly, Monthly | Static Venous Pressure Frequency | RQMT_410 |
| crown-global.xsd | ListedFrequencyB | | enumeration: BiWeekly, Quarterly, Monthly | Doppler Frequency | RQMT_412 |
| crown-global.xsd | DecimalDateGroup | value | xsd:decimal | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | DecimalDateGroup | date | xsd:date | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | IntDateGroup | value | xsd:int | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | IntDateGroup | date | xsd:date | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | BooleanDateGroup | value | xsd:boolean | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | BooleanDateGroup | date | xsd:date | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | StringDateGroup | value | xsd:string | N/A: Organize and support consistency among other data elements | N/A |
| crown-global.xsd | StringDateGroup | date | xsd:date | N/A: Organize and support consistency among other data elements | N/A |
| crown-feedback.xsd | errorsType | error | xsd:string | N/A: Organize and support consistency among other data elements | N/A |

| XSD | schema type | element or attribute | item type | Business Name | Rqmt ID |
|---------------------------|--------------------|-----------------------------|------------------|---|----------------|
| crown-feedback.xsd | warningsType | warning | xsd:string | N/A: Organize and support consistency among other data elements | N/A |
| crown-feedback.xsd | errorsType | code | xsd:string | Error Code for Error | N/A |
| crown-feedback.xsd | warningsType | code | xsd:string | Error Code for Warning | N/A |

6.1.5. COMMUNICATION METHODS

All EDI transmissions are completed within the CROWNWeb system domain.

6.1.5.1 INTERFACE INITIATION

All EDI transmissions are completed within the CROWNWeb system domain.

6.1.5.2 FLOW CONTROL

Results of successful submissions and those containing errors are reported to the user immediately upon the completion of processing for an uploaded EDI submission. The results for Patient submissions can be reviewed within the Patient Processing Summary tab and for Clinical submissions, within the Clinical Processing Summary tab of the CROWNWeb system.

6.1.6 SECURITY REQUIREMENTS

Batch submitters and batch submitting organizations (BSOs) shall meet the standards defined by CMS in order to submit files via EDI to the CROWNWeb system. Uploaded files are secured by a VPN and a CROWNWeb login containing a user role allowing the user to submit files via EDI.

6.2 CROWNWEB REQUIREMENTS

All EDI transmissions are completed within the CROWNWeb system domain adhering to the defined CROWNWeb system requirements.

7. QUALIFICATION METHODS

The qualification of the success of the interface has been demonstrated by the existing method.

Future qualification for subsequent releases shall be tested, analyzed, and demonstrated using a real time implementation.

8. GLOSSARY

A Master CMS glossary is maintained in a separate tracking tool to ensure consistency in understanding and communications. The baseline of the glossary was extracted from the CMS Glossary Tool located at <http://www.cms.gov/apps/glossary/>.

| Term | Definition |
|-----------------|---|
| CROWN | In support of the CMS ESRD community, CMS created the Program Management and Medical Information System (PMMIS). The PMMIS is the system of records for the CMS ESRD data, and is maintained by means of a CROWN suite of systems. CROWN refers to any and all components of the suite of ESRD systems – the Renal Management Information System (REMIS), the Standard Information Management System (SIMS), CROWNWeb, COGNOS Reporting Tool, QualityNet Identity Management System (QIMS), and all related databases and architecture. |
| CROWNWeb | CROWNWeb refers to the web-based system that CMS authorized the design and implementation of in support of the Conditions for Coverage for ESRD Facilities. CROWNWeb accepts administrative and clinical data electronic submissions from dialysis facilities. In addition, CROWNWeb supports the electronic collection and reporting of ESRD data. |

9. ACRONYMS

A Master CMS acronym list is maintained in a separate tracking tool to ensure consistency in understanding and communications. Acronyms are used consistently throughout all ESRD projects. The baseline of the acronyms was extracted from the CMS Acronyms Tool located at <http://www.cms.gov/apps/acronyms/>.

| Acronym | Literal Translation |
|-----------------|--|
| BSO | Batch Submitting Organization |
| CROWNWeb | Consolidated Renal Operations in a Web-Enabled Network |
| EDI | Electronic Data Interchange |
| ESRD | End Stage Renal Disease |
| GUI | Graphical User Interface |
| ICD | Interface Control Document |
| ISG | Information System Group |
| KDD | Kidney Data Directory |
| OCSQ | Office of Clinical Standards and Quality |
| TRA | Technical Reference Architecture |
| URI | Uniform Resource Identifier |
| URL | Uniform Resource Locator |
| VPN | Virtual Private Network |
| XML | eXtensible Markup Language |
| XSD | XML Schema Document |

10. APPENDIX A

| CROWNWeb 4.0.2 - PATIENT ERROR MESSAGES & CODES | | | | |
|---|---|----------|------------|------------------------|
| ERROR CODE | MESSAGE | CATEGORY | IS WARNING | SCHEMA ONLY VALIDATION |
| 100 | Patient could not be processed due to possible matches | Patient | NO | NO |
| 200 | PatientIdentifier, address, and race elements cannot be processed since the patient is not actively admitted by the facility managed by this organization | Patient | Yes | NO |
| 203 | Date of Death ({0}) is not equal to Death Discharge Date ({0}). | Patient | Yes | NO |
| 204 | Admission process cancelled, Patient is already admitted to current facility. | Patient | NO | NO |
| 301 | Patient Treatment is matched as per Treatment Start Date and DialysisSettingType modified from ({0}). | Patient | Yes | NO |
| 302 | Patient Treatment is matched as per Treatment Start Date and DialysisType modified from ({0}). | Patient | Yes | NO |
| 400 | Could not find an unique facility with the given orgFacilityCode <organization facility code> | Patient | NO | NO |
| 401 | Could not find an unique patient with the given orgPatientId <organization patient identifier> | Patient | NO | NO |
| 11101 | Physical Address is incomplete - missing Line One | Patient | NO | Yes |
| 11102 | Physical Address is incomplete - missing Zip Code. | Patient | NO | Yes |
| 11103 | Physical Address is incomplete - missing City. | Patient | NO | Yes |
| 11104 | Physical Address is incomplete - missing State. | Patient | NO | Yes |
| 11105 | Physical Address Zip Code must be 5 digits. | Patient | NO | Yes |
| 11106 | Physical Address Zip Code Extension must be 4 digits. | Patient | NO | Yes |
| 11111 | Mailing Address is incomplete - missing Line One. | Patient | NO | Yes |
| 11112 | Mailing Address is incomplete - missing Zip Code. | Patient | NO | Yes |
| 11113 | Mailing Address is incomplete - missing City. | Patient | NO | Yes |
| 11114 | Mailing Address is incomplete - missing State. | Patient | NO | Yes |
| 11115 | Mailing Address Zip Code must be 5 digits. | Patient | NO | Yes |
| 11116 | Mailing Address Zip Code Extension must be 4 digits. | Patient | NO | Yes |
| 11131 | Transient Address is incomplete - missing Line One. | Patient | NO | Yes |
| 11132 | Transient Address is incomplete - missing Zip Code. | Patient | NO | Yes |
| 11133 | Transient Address is incomplete - missing City. | Patient | NO | Yes |

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| | | | | |
|-------|---|---------|-----|-----|
| 11134 | Transient Address is incomplete - missing State. | Patient | NO | Yes |
| 11135 | Transient Address Zip Code must be 5 digits. | Patient | NO | Yes |
| 11136 | Transient Address Zip Code Extension must be 4 digits. | Patient | NO | Yes |
| 11141 | Transient Phone Number is a required field. | Patient | NO | Yes |
| 11142 | Transient Area code is a required field | Patient | NO | Yes |
| 11143 | Transient Phone Number must be 7 digits and may include a hyphen after the 3rd digit. | Patient | NO | Yes |
| 11144 | Transient Area Code must be 3 digits. | Patient | NO | Yes |
| 11145 | Transient Reason is a required field. | Patient | NO | NO |
| 11146 | A 'New ESRD Patient' Admission may not be Transient. | Patient | NO | NO |
| 11151 | Area code is a required field. | Patient | NO | Yes |
| 11152 | Area code must be 3 digits. | Patient | NO | Yes |
| 11153 | Phone Number is a required field. | Patient | NO | Yes |
| 11154 | Phone Number must be 7 digits and may include a hyphen after the 3rd digit. | Patient | NO | Yes |
| 11161 | Effective Date cannot be future Date. | Patient | NO | NO |
| 11171 | Date of Birth must be after 1/1/1850. | Patient | NO | NO |
| 11172 | Date of Birth cannot be future Date. | Patient | NO | NO |
| 11173 | Date of Death cannot be prior to the patient's Date of Birth ({0}). | Patient | NO | NO |
| 11174 | Date of Death cannot be a future date. | Patient | NO | NO |
| 11175 | Date of Death must be after 1/1/1850. | Patient | NO | NO |
| 11176 | Date of Death must be greater than or equal to Date Regular Chronic Dialysis Began. | Patient | NO | NO |
| 11177 | Date of Death must be greater than or equal to Last Dialysis Treatment. | Patient | NO | NO |
| 11178 | Date of Death must be greater than or equal to Date of Most Recent Transplant. | Patient | NO | NO |
| 11179 | Date of Death must be greater than or equal to Patient Most Recent Admit Date. | Patient | NO | NO |
| 11182 | Name of Enrolled/Principal Tribe is missing | Patient | Yes | NO |
| 11183 | Patient first name is required | Patient | NO | Yes |
| 11184 | Patient last name is required | Patient | NO | Yes |
| 11191 | Medicare Claim Number must be 10 or 11 characters with first character as A-G; number or/and 2-9 characters as numbers and a valid Beneficiary Identification Code (BIC) at the end | Patient | NO | Yes |
| 11192 | Invalid SSN. | Patient | NO | NO |
| 11193 | Medicare Claim Number has an invalid Beneficiary Identification Code (BIC) | Patient | NO | NO |

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| | | | | |
|-------|---|---------|-----|-----|
| 11201 | Discharge Date cannot be a future date. | Patient | NO | NO |
| 11202 | Discharge Date cannot be prior to the patient's Date of Birth({0}). | Patient | NO | NO |
| 11204 | The admission facility is not an open facility as of the entered Discharge Date. | Patient | NO | NO |
| 11205 | Discharge Date must be on or after the Admit Date({0}). | Patient | NO | NO |
| 11206 | Discharge Date cannot be prior to the patients last treatment date({0}). | Patient | NO | NO |
| 11207 | Discharge Date cannot be after the patient's next admission record's Admit Date with the same Transient Status ({0}) | Patient | NO | NO |
| 11208 | Discharge Date must be on or after 1/1/1973 | Patient | NO | NO |
| 11209 | The admission facility is not an open facility as of the entered Discharge Date. | Patient | NO | NO |
| 11211 | Admit Date cannot be a future date. | Patient | NO | NO |
| 11212 | Admit Date cannot be prior to the patient's Date of Birth({0}). | Patient | NO | NO |
| 11213 | Invalid Admit Date: An exact match patient was found and the Admit Date is after the patient's Date of Death ({0}). | Patient | NO | NO |
| 11214 | The admission facility is not an open facility as of the entered Admit Date. | Patient | NO | NO |
| 11216 | Invalid Admit Date: An exact match patient was found and the Admit Date is more than 5 days prior to the patient's previous admission record's Discharge Date with the same Transient Status ({0}). | Patient | NO | NO |
| 11217 | Admit Date must be on or after 1/1/1973. | Patient | NO | NO |
| 11221 | Invalid Admit Reason: An exact match patient was found and the Admit Reason selected is invalid based on the next admission record's Admit Reason with the same Transient Status ({0}). | Patient | NO | NO |
| 11222 | Invalid Admit Reason: An exact match patient was found and the Admit Reason selected is invalid based on the previous admission record's Admit Reason with the same Transient Status ({0}). | Patient | NO | NO |
| 11223 | Invalid Admit Reason for a dialysis facility admission. | Patient | NO | Yes |
| 11224 | Invalid Admit Reason for a transplant facility admission. | Patient | NO | Yes |
| 11225 | Invalid Admit Reason: An exact match patient was found and the Admit Reason selected is invalid based on the previous admission record's Discharge Reason with the same Transient Status ({0}). | Patient | NO | NO |
| 11231 | Invalid Discharge Reason for a dialysis facility admission. | Patient | NO | Yes |
| 11232 | Invalid Discharge Reason for a transplant facility admission. | Patient | NO | Yes |
| 11233 | Invalid Discharge Reason: The Discharge Reason selected is invalid based on the next admission records Admit Reason with the same Transient Status ({0}). | Patient | NO | NO |
| 11234 | Invalid Discharge Reason: The Discharge Reason selected is invalid based on the admission records Admit Reason ({0}). | Patient | NO | Yes |
| 11242 | Primary Type of Treatment is required. | Patient | NO | Yes |
| 11251 | Attending Practitioner is required. | Patient | Yes | NO |
| 11252 | Primary Dialysis Setting is required. | Patient | NO | Yes |

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| | | | | |
|-------|--|---------|-----|-----|
| 11253 | Time Per Session is required. | Patient | Yes | NO |
| 11254 | Valid range for Time Per Session is 60 - 600. | Patient | NO | NO |
| 11255 | Sessions Per Week is required. | Patient | Yes | NO |
| 11256 | Valid range for Sessions Per Week is 1.0 - 7.0. | Patient | NO | NO |
| 11258 | Physician first name is required. | Patient | Yes | Yes |
| 11259 | Physician last name is required. | Patient | Yes | Yes |
| 11261 | Treatment Start Date must be on or after the Admit Date ({0}). | Patient | NO | NO |
| 11262 | Treatment Start Date cannot be a future date. | Patient | NO | NO |
| 11263 | Treatment Start Date cannot be prior to the patient's Date of Birth ({0}). | Patient | NO | NO |
| 11265 | The admission facility is not an open facility as of the entered Treatment Start Date. | Patient | NO | NO |
| 11267 | Treatment Start Date cannot be after the Discharge Date ({0}). | Patient | NO | NO |
| 11268 | Treatment Start Date must be after 1/1/1973. | Patient | NO | NO |
| 11281 | Admit/discharge required. | Patient | NO | NO |
| 11283 | Transfer Discharge Subcategory is required. | Patient | Yes | NO |
| 11284 | Involuntary Discharge Subcategory is required. | Patient | Yes | NO |
| 11285 | Treatment required for admit/discharge. | Patient | NO | NO |
| 11288 | Attending Practitioner's UPIN or NPI is mandatory | Patient | Yes | NO |
| 11290 | Transient Status is required. | Patient | NO | Yes |
| 11293 | Discharge Date is required. | Patient | NO | NO |
| 11295 | Race has been entered. Patient's Self Reporting of Race and Ethnicity is Required. | Patient | NO | Yes |
| 11296 | Race has been entered. Ethnicity is Required. | Patient | NO | NO |
| 11297 | Medicare Enrollment Status must be Medicare Coverage when Medicare Claim Number is populated. | Patient | NO | NO |
| 11298 | Medicare Claim Number is Required if Current Medical Coverage is Medicare. | Patient | NO | NO |
| 11299 | Non U.S. Citizen is not a valid value when Medicare Enrollment Status is Medicare. | Patient | NO | NO |
| 11300 | Foreign National US Resident is not a valid value when Medicare Enrollment Status is Medicare. | Patient | NO | NO |
| 11301 | Non U.S. Citizen is not a valid value when Medicare Enrollment Status is Medicare Application Pending. | Patient | NO | NO |
| 11302 | Foreign National US Resident is not a valid value when Medicare Enrollment Status is Medicare Application Pending. | Patient | NO | NO |
| 11304 | {0} Phone Number is incomplete - missing {1}. | Patient | NO | Yes |
| 11307 | Dialysis Training Begin Date is mandatory when Dialysis Training End Date is populated. | Patient | NO | NO |
| 11308 | Dialysis Training Begin Date is mandatory. | Patient | NO | NO |

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| | | | | |
|--|---|---------|-----|-----|
| 11309 | Dialysis Training Begin Date cannot be a future date. | Patient | NO | NO |
| 11310 | Dialysis Training Begin Date must be on or after 01/01/1973. | Patient | NO | NO |
| 11311 | Dialysis Training Begin Date cannot be prior to the patient's Date of Birth ({0}). | Patient | NO | NO |
| 11312 | Dialysis Training Begin Date cannot be after the patient's Date of Death ({0}). | Patient | NO | NO |
| 11313 | Dialysis Training End Date must be on or after 01/01/1973. | Patient | NO | NO |
| 11314 | Dialysis Training End Date cannot be prior to the patient's Date of Birth ({0}). | Patient | NO | NO |
| 11315 | Dialysis Training End Date cannot be after the patient's Date of Death ({0}). | Patient | NO | NO |
| 11316 | Dialysis Training End Date cannot be prior to the Dialysis Training Begin Date ({0}). | Patient | NO | NO |
| 11322 | Transient status required for admit | Patient | NO | Yes |
| 11324 | Submitter is not mapped to Facility: {0} | Patient | NO | NO |
| 13457 | Org Patient Id exceeds allowed length of 30 | Patient | NO | NO |
| 13458 | Medicare Enrollment Status is required. | Patient | NO | NO |
| 13459 | Dialysis Time Period is mandatory when Primary Type of Treatment is Hemodialysis and Sessions Per Week is greater than 4. | Patient | NO | NO |
| 13460 | Expected Self-Care Setting is mandatory when Sessions Per Week is greater than 4. | Patient | NO | NO |
| 20003 | Near Match Error Merged Patient | Patient | NO | NO |
| 20004 | Submitted {0} was found to match an existing patient | Patient | NO | NO |
| 20005 | Submitted {0} does not exist within the CROWNWeb system | Patient | NO | NO |
| 20008 | Patient's Self Reporting of Race and Ethnicity has been entered. Race is Required. | Patient | NO | Yes |
| 20009 | Patient's Self Reporting of Race and Ethnicity has been entered. Ethnicity is Required. | Patient | NO | NO |
| 20010 | Ethnicity has been entered. Patient's Self Reporting of Race and Ethnicity is Required. | Patient | NO | Yes |
| 20013* | Multiple physicians returned for criteria {0}, {1} and org unique id: {2} | Patient | Yes | NO |
| 20016* | Multiple patients mapped to the same external id: {0} | Patient | Yes | NO |
| 99999 | An unexpected error happened while processing the file. Error details are: {0} | Patient | NO | NO |
| *Error Code and Message can only be replicated by altering data within the database. | | | | |

| CROWNWeb 4.0.2 - CLINICAL ERROR MESSAGES & CODES | | | | |
|--|--|----------|------------|------------------------|
| ERROR CODE | MESSAGE | CATEGORY | IS WARNING | SCHEMA ONLY VALIDATION |
| 400 | Could not find an unique facility with the given orgFacilityCode <organization facility code> | Clinical | NO | NO |
| 401 | Could not find an unique patient with the given orgPatientId <organization patient identifier> | Clinical | NO | NO |

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| | | | | |
|-------|--|----------|-----|-----|
| 600 | Clinical date is required. | Clinical | NO | NO |
| 601 | Clinical month is frozen. | Clinical | NO | NO |
| 602 | Selected clinical month is not available in CROWN. [Mon/YYYY] | Clinical | NO | NO |
| 604 | Cannot process question {0} because patient is not receiving HD or PD treatment as of <YYYY-MM-DD>. | Clinical | NO | NO |
| 11324 | Submitter is not mapped to Facility: {0} | Clinical | NO | NO |
| 12101 | Hemoglobin is mandatory when Hemoglobin Date is populated. | Clinical | NO | Yes |
| 12102 | Hemoglobin is not in the valid range (5.0 - 20.0). | Clinical | YES | NO |
| 12103 | Hemoglobin Date is mandatory when Hemoglobin is populated. | Clinical | NO | Yes |
| 12104 | Hemoglobin Date must be in the Clinical Month and Year. | Clinical | NO | NO |
| 12105 | Hemoglobin Collection Date must be on or after 1/1/1973. | Clinical | NO | NO |
| 12106 | Hemoglobin Collection Date cannot be a future date. | Clinical | NO | NO |
| 12107 | Hemoglobin Collection Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12108 | Hemoglobin Collection Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12109 | Patient is not receiving Hemodialysis at the selected facility as of the Hemoglobin Date entered. | Clinical | NO | NO |
| 12110 | Ferritin is mandatory when Ferritin Collection Date is populated. | Clinical | NO | Yes |
| 12111 | Ferritin is not in the valid range (10 - 4000). | Clinical | YES | NO |
| 12112 | Ferritin Date is mandatory when Ferritin is populated. | Clinical | NO | Yes |
| 12113 | Ferritin Date must be in the Clinical Month and Year. | Clinical | NO | NO |
| 12114 | Ferritin Date must be on or after 01/01/1973. | Clinical | NO | NO |
| 12115 | Ferritin Date cannot be a future date. | Clinical | NO | NO |
| 12116 | Ferritin Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12117 | Ferritin Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12118 | Patient is not receiving Hemodialysis at the selected facility as of the Ferritin Date entered. | Clinical | NO | NO |
| 12119 | TSAT is mandatory when TSAT Date is populated. | Clinical | NO | Yes |
| 12120 | TSAT is not in the valid range (3 - 120). | Clinical | YES | NO |
| 12121 | TSAT Date is mandatory when TSAT is populated. | Clinical | NO | Yes |
| 12122 | TSAT Date must be in the Clinical Month and Year. | Clinical | NO | NO |
| 12123 | TSAT Date must be on or after 01/01/1973. | Clinical | NO | NO |
| 12124 | TSAT Date cannot be a future date. | Clinical | NO | NO |
| 12125 | TSAT Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12126 | TSAT Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12127 | Patient is not receiving Hemodialysis at the selected facility as of the TSAT Date entered. | Clinical | NO | NO |
| 12128 | Reticulocyte Hemoglobin (CHr) is mandatory when Reticulocyte Hemoglobin (CHr) Date is populated. | Clinical | NO | Yes |
| 12129 | Reticulocyte Hemoglobin (CHr) is not in the valid range (20 - 40). | Clinical | YES | NO |
| 12130 | Reticulocyte Hemoglobin (CHr) Date is mandatory when Reticulocyte Hemoglobin (CHr) is populated. | Clinical | NO | Yes |
| 12131 | Reticulocyte Hemoglobin (CHr) Date must be in the Clinical Month and Year. | Clinical | NO | NO |
| 12132 | Reticulocyte Hemoglobin (CHr) Date must be on or after 01/01/1973. | Clinical | NO | NO |
| 12133 | Reticulocyte Hemoglobin (CHr) Date cannot be a future date. | Clinical | NO | NO |
| 12134 | Reticulocyte Hemoglobin (CHr) Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12135 | Reticulocyte Hemoglobin (CHr) Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12136 | Patient is not receiving Hemodialysis at the selected facility as of the Reticulocyte Hemoglobin (CHr) Date entered. | Clinical | NO | NO |

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| | | | | |
|-------|--|----------|-----|-----|
| 12209 | Patient is not receiving CAPD or CCPD at the selected facility as of the Hemoglobin Date entered. | Clinical | NO | NO |
| 12218 | Patient is not receiving CAPD or CCPD at the selected facility as of the Ferritin Date entered. | Clinical | NO | NO |
| 12227 | Patient is not receiving CAPD or CCPD at the selected facility as of the TSAT Date entered. | Clinical | NO | NO |
| 12236 | Patient is not receiving CAPD or CCPD at the selected facility as of the Reticulocyte Hemoglobin (CHr) Date entered. | Clinical | NO | NO |
| 12301 | Pho is mandatory when Pho Date is populated. | Clinical | NO | Yes |
| 12302 | Pho is not in the valid range (0.1 - 20.0). | Clinical | YES | NO |
| 12303 | Pho Date is mandatory when Pho is populated. | Clinical | NO | Yes |
| 12304 | Pho Date must be in the Clinical Month and Year. | Clinical | NO | NO |
| 12305 | Pho Date must be on or after 1/1/1973. | Clinical | NO | NO |
| 12306 | Pho Date cannot be a future date. | Clinical | NO | NO |
| 12307 | Pho Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12308 | Pho Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12309 | Patient is not receiving Hemodialysis at the selected facility as of the Pho Date entered. | Clinical | NO | NO |
| 12310 | Corrected Serum Calcium is mandatory when Corrected Serum Calcium Date is populated. | Clinical | NO | Yes |
| 12311 | Corrected Serum Calcium is not in the valid range (0.1 - 20.0). | Clinical | YES | NO |
| 12312 | Corrected Serum Calcium Date is mandatory when Corrected Serum Calcium is populated. | Clinical | NO | Yes |
| 12313 | Corrected Serum Calcium Date must be in the Clinical Month and Year. | Clinical | NO | NO |
| 12314 | Corrected Serum Calcium Date must be on or after 1/1/1973. | Clinical | NO | NO |
| 12315 | Corrected Serum Calcium Date cannot be a future date. | Clinical | NO | NO |
| 12316 | Corrected Serum Calcium Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12317 | Corrected Serum Calcium Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12318 | Patient is not receiving Hemodialysis at the selected facility as of the Corrected Serum Calcium Date entered. | Clinical | NO | NO |
| 12319 | Uncorrected Serum Calcium is mandatory when [Serum Calcium Date or Serum Albumin] is populated. | Clinical | NO | NO |
| 12320 | Uncorrected Serum Calcium is not in the valid range (0.1 - 20.0). | Clinical | YES | NO |
| 12323 | Uncorrected Serum Calcium Date must be in the Clinical Month and Year. | Clinical | NO | NO |
| 12324 | Uncorrected Serum Calcium Date must be on or after 1/1/1973. | Clinical | NO | NO |
| 12325 | Uncorrected Serum Calcium Date cannot be a future date. | Clinical | NO | NO |
| 12326 | Uncorrected Serum Calcium Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12327 | Uncorrected Serum Calcium Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12328 | Patient is not receiving Hemodialysis at the selected facility as of the Uncorrected Serum Calcium Date entered. | Clinical | NO | NO |
| 12329 | Serum Albumin is mandatory when Serum Albumin Collection Date, Serum Albumin Lower Limit, or Uncorrected Serum Calcium is populated. | Clinical | NO | NO |
| 12330 | Serum Albumin is not in the valid range (1.00 - 5.50). | Clinical | YES | NO |
| 12331 | Serum Albumin Date must equal the Uncorrected Serum Calcium Date. | Clinical | YES | NO |
| 12332 | Serum Albumin Date is mandatory when Serum Albumin is populated. | Clinical | NO | Yes |
| 12333 | Serum Albumin Date must be in the Clinical Month and Year. | Clinical | NO | NO |
| 12334 | Serum Albumin Date must be on or after 1/1/1973. | Clinical | NO | NO |
| 12335 | Serum Albumin Date cannot be a future date. | Clinical | NO | NO |
| 12336 | Serum Albumin Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |

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| | | | | |
|-------|---|----------|-----|-----|
| 12337 | Serum Albumin Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12338 | Patient is not receiving Hemodialysis at the selected facility as of the Serum Albumin Date entered. | Clinical | NO | NO |
| 12340 | Serum Albumin Lower Limit is mandatory when Serum Albumin is populated. | Clinical | NO | Yes |
| 12341 | Serum Albumin Lower Limit is not in the valid range (0.50 - 5.50). | Clinical | YES | NO |
| 12409 | Patient is not receiving CAPD or CCPD at the selected facility as of the Pho Date entered. | Clinical | NO | NO |
| 12418 | Patient is not receiving CAPD or CCPD at the selected facility as of the Corrected Serum Calcium Date entered. | Clinical | NO | NO |
| 12428 | Patient is not receiving CAPD or CCPD at the selected facility as of the Uncorrected Serum Calcium Date entered. | Clinical | NO | NO |
| 12438 | Patient is not receiving CAPD or CCPD at the selected facility as of the Serum Albumin Date entered. | Clinical | NO | NO |
| 12501 | Kt/V is mandatory when Kt/V Date, Kt/V Method, BUN Pre-Dialysis, BUN Post-Dialysis, Pre-Dialysis Weight, Post-Dialysis Weight, or Delivered Minutes of BUN Hemodialysis Session is populated. | Clinical | NO | Yes |
| 12502 | Kt/V is not in the valid range (0.50 - 2.50). | Clinical | YES | NO |
| 12503 | Kt/V Date is mandatory when Patient Height is populated. | Clinical | NO | Yes |
| 12504 | Kt/V Date is mandatory when Kt/V is populated. | Clinical | NO | Yes |
| 12505 | Kt/V Date must be in the Clinical Month and Year. | Clinical | NO | NO |
| 12506 | Kt/V Date must be on or after 1/1/1973. | Clinical | NO | NO |
| 12507 | Kt/V Date cannot be a future date. | Clinical | NO | NO |
| 12508 | Kt/V Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12509 | Kt/V Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12510 | Patient is not receiving Hemodialysis at the selected facility as of the Kt/V Date entered. | Clinical | NO | NO |
| 12511 | Kt/V Method is mandatory when Kt/V is populated. | Clinical | NO | NO |
| 12513 | BUN Pre-Dialysis is mandatory when BUN Post-Dialysis, Pre-Dialysis Weight, Post-Dialysis Weight, or Delivered Minutes of BUN Hemodialysis Session is populated. | Clinical | NO | Yes |
| 12514 | BUN Pre-Dialysis is not in the valid range (3 - 200). | Clinical | YES | NO |
| 12515 | BUN Post-Dialysis is mandatory when BUN Pre-Dialysis, Pre-Dialysis Weight, Post-Dialysis Weight, or Delivered Minutes of BUN Hemodialysis Session is populated. | Clinical | NO | Yes |
| 12516 | BUN Post-Dialysis is not in the valid range (3 - 200). | Clinical | YES | NO |
| 12517 | BUN Post-Dialysis cannot be more than the BUN Pre-Dialysis value. | Clinical | NO | NO |
| 12518 | Pre-Dialysis Weight is mandatory when BUN Pre-Dialysis, BUN Post-Dialysis, Post-Dialysis Weight, or Delivered Minutes of BUN Hemodialysis Session is populated. | Clinical | NO | Yes |
| 12519 | Pre-Dialysis Weight must be greater than zero (0). | Clinical | NO | NO |
| 12520 | Pre-Dialysis Weight Unit of Measure is mandatory when Pre-Dialysis Weight is populated. | Clinical | NO | Yes |
| 12521 | Kt/V Date is mandatory when Pre-Dialysis Weight is populated. | Clinical | NO | Yes |
| 12522 | Pre-Dialysis Weight is not in the valid range (<x-y> lbs or <a-b> kg). | Clinical | YES | NO |
| 12523 | Post-Dialysis Weight is mandatory when BUN Pre-Dialysis, BUN Post-Dialysis, Pre-Dialysis Weight, or Delivered Minutes of BUN Hemodialysis Session is populated. | Clinical | NO | Yes |
| 12524 | Post-Dialysis Weight must be greater than zero (0). | Clinical | NO | NO |
| 12525 | Post-Dialysis Weight is more than 5% greater than the Pre-Dialysis Weight. | Clinical | YES | NO |
| 12526 | Post-Dialysis Weight Unit of Measure is mandatory when Post-Dialysis Weight is populated. | Clinical | NO | Yes |
| 12527 | Kt/V Date is mandatory when Post-Dialysis Weight is populated. | Clinical | NO | Yes |
| 12528 | Post-Dialysis Weight is not in the valid range (<x-y> lbs or <a-b> kg). | Clinical | YES | NO |

| | | | | |
|-------|--|----------|-----|-----|
| 12529 | Delivered Minutes of BUN Hemodialysis Session is mandatory when BUN Pre-Dialysis, BUN Post-Dialysis, Pre-Dialysis Weight, or Post-Dialysis Weight is populated. | Clinical | NO | Yes |
| 12530 | Delivered Minutes of BUN Hemodialysis Session is not in the valid range (60 - 600). | Clinical | YES | NO |
| 12532 | Height Unit of Measure is mandatory when Height is populated. | Clinical | NO | NO |
| 12533 | Height is not in the valid range (<x-y> in or <a-b> cm). | Clinical | YES | NO |
| 12534 | Serum Creatinine is mandatory when Serum Creatinine Collection Date, Dialysate Volume, Dialysate Urea Nitrogen, Dialysate Creatinine, Urine Volume, or Serum BUN is populated. | Clinical | NO | NO |
| 12535 | Serum Creatinine is not in the valid range (2.0 - 25.0). | Clinical | YES | NO |
| 12537 | Serum Creatinine Date is mandatory when Serum Creatinine is populated. | Clinical | NO | Yes |
| 12538 | Serum Creatinine Date must be in the Clinical Month and Year. | Clinical | NO | NO |
| 12539 | Serum Creatinine Date must be on or after 1/1/1973. | Clinical | NO | NO |
| 12540 | Serum Creatinine Date cannot be a future date. | Clinical | NO | NO |
| 12541 | Serum Creatinine Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12542 | Serum Creatinine Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12543 | Patient is not receiving Hemodialysis at the selected facility as of the Serum Creatinine Date entered. | Clinical | NO | NO |
| 12544 | Height cannot be zero (0). | Clinical | NO | NO |
| 12601 | Weekly Kt/V is mandatory when Weekly Kt/V Date, V Method, BSA Method, RRF Assessed in Kt/V, Prescription Change after Adequacy Measurement, Dialysate Urea Nitrogen, Dialysate Creatinine, Urine Urea Nitrogen, Urine Creatinine, or Serum BUN is populated. | Clinical | NO | Yes |
| 12602 | Weekly Kt/V is not in the valid range (<x - y>). | Clinical | YES | NO |
| 12603 | Weekly Kt/V Date is mandatory when Patient Height is populated. | Clinical | NO | Yes |
| 12604 | Weekly Kt/V Date is mandatory when Weekly Kt/V is populated. | Clinical | NO | Yes |
| 12605 | Weekly Kt/V Date must be in the Clinical Month and Year. | Clinical | NO | NO |
| 12606 | Weekly Kt/V Date must be on or after 1/1/1973. | Clinical | NO | NO |
| 12607 | Weekly Kt/V Date cannot be a future date. | Clinical | NO | NO |
| 12608 | Weekly Kt/V Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12609 | Weekly Kt/V Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12610 | Patient is not receiving CAPD or CCPD at the selected facility as of the Weekly Kt/V Date entered. | Clinical | NO | NO |
| 12611 | V Method is mandatory when Weekly Kt/V is populated. | Clinical | NO | Yes |
| 12613 | BSA Method is mandatory when Weekly Kt/V is populated. | Clinical | NO | Yes |
| 12614 | RRF Assessed in Kt/V is mandatory when Weekly Kt/V is populated. | Clinical | NO | Yes |
| 12615 | Prescription Change after Adequacy Measurement is mandatory when Weekly Kt/V is populated. | Clinical | NO | Yes |
| 12616 | Dialysate Volume is mandatory when Clinic Weight, Creatinine Clearance, Dialysate Urea Nitrogen, Dialysate Creatinine, Urine Volume, Serum BUN, or Serum Creatinine is populated. | Clinical | NO | NO |
| 12617 | Weekly Kt/V Date is mandatory when Dialysate Volume is populated. | Clinical | NO | Yes |
| 12618 | Dialysate Volume is not in the valid range (<x - y>). | Clinical | YES | NO |
| 12619 | Dialysate Urea Nitrogen is mandatory when Clinic Weight, Creatinine Clearance, Dialysate Volume, Dialysate Creatinine, Urine Volume, Serum BUN, or Serum Creatinine is populated. | Clinical | NO | NO |
| 12620 | Dialysate Urea Nitrogen is not in the valid range (10.0 - 500.0). | Clinical | YES | NO |
| 12621 | Dialysate Creatinine is mandatory when Clinic Weight, Creatinine Clearance, Dialysate Volume, Dialysate Urea Nitrogen, Urine Volume, Serum BUN, or Serum Creatinine is populated. | Clinical | NO | NO |
| 12622 | Dialysate Creatinine is not in the valid range (2.5 - 20.0). | Clinical | YES | NO |

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| 12624 | Urine Volume is not in the valid range (10 - 3500). | Clinical | YES | NO |
| 12625 | Urine Urea Nitrogen is mandatory when Urine Volume is populated. | Clinical | NO | NO |
| 12626 | Urine Urea Nitrogen is not in the valid range (10.0 - 950.0). | Clinical | YES | NO |
| 12627 | Urine Creatinine is mandatory when Urine Volume is populated. | Clinical | NO | NO |
| 12628 | Urine Creatinine is not in the valid range (1.0 - 400.0). | Clinical | YES | NO |
| 12629 | Serum BUN is mandatory when Clinic Weight, Creatinine Clearance, Dialysate Volume, Dialysate Urea Nitrogen, Dialysate Creatinine, Urine Volume, or Serum Creatinine is populated. | Clinical | NO | NO |
| 12630 | Serum BUN is not in the valid range (15 - 140). | Clinical | YES | NO |
| 12631 | Clinic Weight is mandatory when Creatinine Clearance, Dialysate Volume, Dialysate Urea Nitrogen, Dialysate Creatinine, Urine Volume, Serum BUN, or Serum Creatinine is populated. | Clinical | NO | NO |
| 12632 | Clinic Weight Unit of Measurement is mandatory when Clinic Weight is populated. | Clinical | NO | NO |
| 12633 | Weekly Kt/V Date is mandatory when Clinic Weight is populated. | Clinical | NO | Yes |
| 12634 | Clinic Weight is not in the valid range (<x-y> lbs or <a-b> kg). | Clinical | YES | NO |
| 12635 | Creatinine Clearance is mandatory when Clinic Weight, Dialysate Volume, Dialysate Urea Nitrogen, Dialysate Creatinine, Urine Volume, Serum BUN, or Serum Creatinine is populated. | Clinical | NO | NO |
| 12636 | Creatinine Clearance Unit of Measure is mandatory when Creatinine Clearance is populated. | Clinical | NO | Yes |
| 12637 | Creatinine Clearance is not in the valid range (<x - y>). | Clinical | YES | NO |
| 12638 | BSA Corrected is mandatory when Creatinine Clearance is populated. | Clinical | NO | NO |
| 12644 | Serum Creatinine Date is mandatory when SerumCreatinine is populated. | Clinical | NO | Yes |
| 12650 | Patient is not receiving CAPD or CCPD at the selected facility as of the Serum Creatinine Date entered. | Clinical | NO | NO |
| 12652 | Clinic Weight cannot be zero (0). | Clinical | NO | NO |
| 12701 | Current Access Type is mandatory. | Clinical | NO | Yes |
| 12702 | Date Access Type Changed is mandatory when the Current Access Type is changed. | Clinical | NO | Yes |
| 12703 | Date Access Type Changed is mandatory. | Clinical | NO | Yes |
| 12704 | Date Access Type Changed must be on or after 1/1/1973. | Clinical | NO | NO |
| 12705 | Date Access Type Changed cannot be a future date. | Clinical | NO | NO |
| 12706 | Date Access Type Changed cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12707 | Date Access Type Changed cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12709 | AV Fistula Usable Date is mandatory based on the Current Access Type populated. | Clinical | NO | NO |
| 12710 | AV Fistula Usable Date must be on or after 1/1/1973. | Clinical | NO | NO |
| 12711 | AV Fistula Usable Date cannot be a future date. | Clinical | NO | NO |
| 12712 | AV Fistula Usable Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12713 | AV Fistula Usable Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12714 | Patient is not receiving Hemodialysis at the selected facility as of the AV Fistula Usable Date entered. | Clinical | NO | NO |
| 12715 | Date of Reported Dialysis Session is mandatory when Vascular Access information has been entered or changed. | Clinical | NO | Yes |
| 12716 | Date of Reported Dialysis Session must be in the Clinical Month and Year. | Clinical | NO | NO |
| 12717 | Date of Reported Dialysis Session must be on or after 1/1/1973. | Clinical | NO | NO |
| 12718 | Date of Reported Dialysis Session cannot be a future date. | Clinical | NO | NO |
| 12719 | Date of Reported Dialysis Session cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12720 | Date of Reported Dialysis Session cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |

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| 12721 | Patient is not receiving Hemodialysis at the selected facility as of the Date of Reported Dialysis Session entered. | Clinical | NO | NO |
| 12722 | AV Fistula Maturing is mandatory based on the Current Access Type populated. | Clinical | NO | NO |
| 12723 | AV Graft Maturing is mandatory based on the Current Access Type populated. | Clinical | NO | NO |
| 12726 | AVF Creation Date is mandatory when AV Fistula Maturing = Yes. | Clinical | NO | NO |
| 12727 | AVF Creation Date must be on or after 1/1/1973. | Clinical | NO | NO |
| 12728 | AVF Creation Date cannot be a future date. | Clinical | NO | NO |
| 12729 | AVF Creation Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12730 | AVF Creation Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12731 | Physical examination of access performed for AVF/AVG is mandatory based on the Current Access Type populated. | Clinical | NO | NO |
| 12732 | Frequency of access physical examination is mandatory when Access Physical Examination = Yes. | Clinical | NO | NO |
| 12733 | Arterial Pre-Pump pressure performed for AVF/AVG is mandatory based on the Current Access Type populated. | Clinical | NO | NO |
| 12734 | Frequency of arterial pre-pump pressure measurement is mandatory when Pre Pump Pressure = Yes. | Clinical | NO | NO |
| 12735 | Surveillance of AVG for access dysfunction performed is mandatory based on the Current Access Type populated. | Clinical | NO | NO |
| 12736 | Surveillance of AVG with intra-access flow performed is mandatory when Graft Survey = Yes. | Clinical | NO | NO |
| 12737 | Frequency of intra-access flow measurement is mandatory when Intra-Access Flow = Yes. | Clinical | NO | NO |
| 12738 | Surveillance of AVG by static venous pressure performed is mandatory when Graft Survey = Yes. | Clinical | NO | NO |
| 12739 | Frequency of static venous pressure measurement is mandatory when Static Venous Pressure = Yes. | Clinical | NO | NO |
| 12740 | Surveillance of AVG with doppler ultrasound performed is mandatory when Graft Survey = Yes. | Clinical | NO | NO |
| 12741 | Frequency of doppler ultrasound is mandatory when Doppler = Yes. | Clinical | NO | NO |
| 12742 | AV Fistula State must be Active based on the Access Type for Dialysis. | Clinical | NO | NO |
| 12743 | AV Graft State must be Active based on the Access Type for Dialysis. | Clinical | NO | NO |
| 12744 | Other Source of Vascular Infection exceeds allowed length of {0}. | Clinical | NO | NO |
| 12801 | ESA Prescribed is mandatory. | Clinical | NO | NO |
| 12802 | Intravenous (IV) Iron Prescribed is mandatory. | Clinical | NO | NO |
| 12808 | Intravenous (IV) Iron Prescribed Date is mandatory when the value in Intravenous (IV) Iron Prescribed is Intravenous (IV) Iron was Prescribed. | Clinical | NO | NO |
| 12809 | Intravenous (IV) Iron Prescribed Date must be ON OR after 1/1/1973. | Clinical | NO | NO |
| 12810 | Intravenous (IV) Iron Prescribed Date cannot be a future date. | Clinical | NO | NO |
| 12811 | Intravenous (IV) Iron Prescribed Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12812 | Intravenous (IV) Iron Prescribed Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12820 | Kt/V must be numeric with no more than 2 decimal places. | Clinical | NO | NO |
| 12821 | BUN Pre-Dialysis must be numeric with no decimal place. | Clinical | NO | Yes |
| 12822 | Residual Urea Clearance exceeds allowed length of {0}. | Clinical | NO | NO |
| 12823 | Residual Urea Clearance for HD must be a numeric value. | Clinical | NO | Yes |
| 12824 | Delivered Minutes of BUN Hemodialysis Session must be numeric with no decimal place. | Clinical | NO | Yes |
| 12825 | Post-Dialysis Target Weight for Session is mandatory. | Clinical | NO | NO |
| 12826 | Pre-Dialysis Weight must be numeric with no more than 1 decimal place. | Clinical | NO | NO |
| 12827 | Post-Dialysis Weight must be numeric with no more than 1 decimal place. | Clinical | NO | NO |

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| 12828 | Non-Oral Vitamin D Analog Prescribed is mandatory. | Clinical | NO | NO |
| 12829 | Non-Oral Vitamin D Analog is mandatory when Non-Oral Vitamin D Analog is Prescribed. | Clinical | NO | NO |
| 12830 | Other Non-Oral Vitamin D Analog is mandatory when Non-Oral Vitamin D Analog is Other. | Clinical | NO | NO |
| 12831 | Other Non-Oral Vitamin D Analog exceeds allowed length of {0}. | Clinical | NO | NO |
| 12832 | Non-Oral Vitamin D Analog Dosage is mandatory when Non-Oral Vitamin D Analog is populated. | Clinical | NO | Yes |
| 12833 | Non-Oral Vitamin D Analog Dosage exceeds allowed length of {0}. | Clinical | NO | NO |
| 12834 | Non-Oral Vitamin D Analog Dosage must be numeric. | Clinical | NO | Yes |
| 12835 | Non-Oral Vitamin D Analog Route is mandatory when Non-Oral Vitamin D Analog Dosage is populated. | Clinical | NO | Yes |
| 12840 | Interdialytic Time is Mandatory. | Clinical | NO | Yes |
| 12841 | Interdialytic Time exceeds allowed length of 30. | Clinical | NO | NO |
| 12842 | Interdialytic Time must be a numeric value. | Clinical | NO | NO |
| 12843 | Interdialytic Time should have a valid format of: dd:hh:mm or mm. | Clinical | NO | NO |
| 12844 | Peritoneal Dialysate Culture Result is mandatory when Outpatient Antibiotics Administered is Antibiotic Therapy was prescribed. | Clinical | NO | NO |
| 12845 | Result of Peritoneal Dialysis Effluent Analysis is mandatory when Outpatient Antibiotics Administered is Antibiotic Therapy was prescribed. | Clinical | NO | NO |
| 12846 | Clinic Weight must be numeric with no more than 1 decimal place. | Clinical | NO | NO |
| 12847 | Weekly Kt/V Date is mandatory if Clinic Weight is populated. | Clinical | NO | Yes |
| 12849 | Creatinine Clearance must be numeric with no more than 1 decimal place. | Clinical | NO | NO |
| 12850 | Creatinine Clearance cannot be zero (0). | Clinical | NO | NO |
| 12851 | Serum BUN must be numeric with no decimal place. | Clinical | NO | Yes |
| 12852 | Urine Creatinine must be numeric with no more than 1 decimal place. | Clinical | NO | NO |
| 12853 | Urine Urea Nitrogen must be numeric with no more than 1 decimal place. | Clinical | NO | NO |
| 12854 | Urine Volume must be numeric with no decimal place. | Clinical | NO | Yes |
| 12855 | Dialysate Creatinine must be numeric with no more than 1 decimal place. | Clinical | NO | NO |
| 12856 | Dialysate Urea Nitrogen must be numeric with no more than 1 decimal place. | Clinical | NO | NO |
| 12857 | Dialysate Volume must be numeric with no decimal place. | Clinical | NO | Yes |
| 12858 | Weekly Kt/V Date is mandatory if Dialysate Volume is populated. | Clinical | NO | Yes |
| 12859 | Weekly Kt/V must be numeric with no more than 2 decimal places. | Clinical | NO | NO |
| 12860 | Date Access Type Changed is prior to patient's admit date when no previous admission or treatment records exist. | Clinical | NO | NO |
| 12862 | AV Fistula Creation Date is prior to patient's admit date when no previous admission or treatment records exist. | Clinical | Yes | NO |
| 12865 | Date of Newly Suspected Infection must be a valid date. | Clinical | NO | Yes |
| 12866 | Date of Newly Suspected Infection cannot be a future date. | Clinical | NO | NO |
| 12867 | Date of Newly Suspected Infection must be on or after 01/01/1973. | Clinical | NO | NO |
| 12868 | Date of Newly Suspected Infection cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12869 | Date of Newly Suspected Infection cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12870 | Date Access Infection Confirmed must be a valid date. | Clinical | NO | Yes |
| 12871 | Date Access Infection Confirmed cannot be a future date. | Clinical | NO | NO |
| 12872 | Date Access Infection Confirmed must be on or after 01/01/1973. | Clinical | NO | NO |
| 12873 | Date Access Infection Confirmed cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |

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| 12874 | Date Access Infection Confirmed cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12875 | Source of Vascular Infection is mandatory when Date Access Infection Confirmed is populated. | Clinical | NO | NO |
| 12878 | Height must be numeric with no more than 1 decimal place. | Clinical | NO | NO |
| 12885 | Height is mandatory when [Kt/V or Weekly Kt/V] is populated. | Clinical | NO | NO |
| 12886 | Infection Id exceeds allowed length of {0}. | Clinical | NO | NO |
| 12887 | Date Access Infection Confirmed Infection must be a valid date. | Clinical | NO | Yes |
| 12888 | Date Access Infection Confirmed Infection cannot be a future date. | Clinical | NO | Yes |
| 12889 | Date Access Infection Confirmed must be on or after 01/01/1973. | Clinical | NO | Yes |
| 12890 | Date Access Infection Confirmed cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | Yes |
| 12891 | Date Access Infection Confirmed cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | Yes |
| 12892 | Site of Dialysis Access Infection is mandatory when Date Access Infection Confirmed is populated. | Clinical | NO | NO |
| 12895 | Infection Requires Hospitalization is mandatory when Outpatient Antibiotics Administered is Antibiotic Therapy was prescribed. | Clinical | NO | NO |
| 12896 | Date Antibiotic Prescribed is mandatory when Outpatient Antibiotics Administered is Antibiotic Therapy was prescribed. | Clinical | NO | NO |
| 12897 | Symptoms of Clinical Sepsis is mandatory when Outpatient Antibiotics Administered is Antibiotic Therapy was prescribed. | Clinical | NO | NO |
| 12898 | Blood Culture Result is mandatory when Outpatient Antibiotics Administered is Antibiotic Therapy was prescribed. | Clinical | NO | NO |
| 12899 | Indicate Organisms of Positive Culture is not allowed when Blood Culture Result is not Positive Culture. | Clinical | NO | NO |
| 12900 | Date Antibiotic Prescribed Confirmed Infection must be a valid date. | Clinical | NO | Yes |
| 12901 | Date Antibiotic Prescribed Confirmed Infection cannot be a future date. | Clinical | NO | NO |
| 12902 | Date Antibiotic Prescribed Confirmed must be on or after 01/01/1973. | Clinical | NO | NO |
| 12903 | Date Antibiotic Prescribed Confirmed cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12904 | Date Antibiotic Prescribed Confirmed cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12905 | Other Antibiotic Dose Measurement is mandatory when Antibiotic Dose Measurement is Other. | Clinical | NO | NO |
| 12906 | Other Antibiotic Dose Measurement exceeds allowed length of {0}. | Clinical | NO | NO |
| 12907 | Blood Culture Date Confirmed Infection must be a valid date. | Clinical | NO | Yes |
| 12908 | Blood Culture Date Confirmed Infection cannot be a future date. | Clinical | NO | NO |
| 12909 | Blood Culture Date Confirmed must be on or after 01/01/1973. | Clinical | NO | NO |
| 12910 | Blood Culture Date Confirmed cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12911 | Blood Culture Date Confirmed cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12913 | Indicate Organism(s) of Positive Culture exceeds allowed length of {0}. | Clinical | NO | NO |
| 12914 | Antibiotic Name is mandatory when Antibiotic Dose is populated. | Clinical | NO | Yes |
| 12915 | Antibiotic Name is mandatory when Antibiotic Frequency is populated. | Clinical | NO | Yes |
| 12916 | Antibiotic Name is mandatory when Antibiotic Route is populated. | Clinical | NO | Yes |
| 12917 | Antibiotic Name exceeds allowed length of {0}. | Clinical | NO | NO |
| 12918 | Antibiotic Frequency is mandatory when Antibiotic Name is populated. | Clinical | NO | NO |
| 12919 | Antibiotic Frequency is mandatory when Antibiotic Dose is populated. | Clinical | NO | NO |
| 12920 | Antibiotic Frequency is mandatory when Antibiotic Route is populated. | Clinical | NO | NO |
| 12921 | Antibiotic Dose is mandatory when Antibiotic Name is populated. | Clinical | NO | NO |
| 12922 | Antibiotic Dose is mandatory when Antibiotic Frequency is populated. | Clinical | NO | NO |

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| 12923 | Antibiotic Dose is mandatory when Antibiotic Route is populated. | Clinical | NO | NO |
| 12924 | Antibiotic Dose Measure is mandatory when Antibiotic Dose is populated. | Clinical | NO | NO |
| 12925 | Antibiotic Dose must be a numeric value. | Clinical | NO | Yes |
| 12926 | Antibiotic Route is mandatory when Antibiotic Name is populated. | Clinical | NO | NO |
| 12927 | Antibiotic Route is mandatory when Antibiotic Frequency is populated. | Clinical | NO | NO |
| 12928 | Antibiotic Route is mandatory when Antibiotic Dose is populated. | Clinical | NO | NO |
| 12929 | Other Antibiotic Route is mandatory when Antibiotic Route is Other. | Clinical | NO | NO |
| 12930 | Other Antibiotic Route exceeds allowed length of {0}. | Clinical | NO | NO |
| 12931 | Other Antibiotic Frequency is mandatory when Antibiotic Frequency is Other. | Clinical | NO | NO |
| 12932 | Other Antibiotic Frequency exceeds allowed length of {0}. | Clinical | NO | NO |
| 12934 | Infection Hospitalization Date must be a valid date. | Clinical | NO | Yes |
| 12935 | Infection Hospitalization Date cannot be a future date. | Clinical | NO | NO |
| 12936 | Infection Hospitalization Date must be on or after 01/01/1973. | Clinical | NO | NO |
| 12937 | Infection Hospitalization Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12938 | Infection Hospitalization Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12939 | Other Intravenous (IV) Iron is mandatory when Intravenous (IV) Iron is Other. | Clinical | NO | NO |
| 12940 | Other Intravenous (IV) Iron exceeds allowed length of {0}. | Clinical | NO | NO |
| 12941 | Intravenous (IV) Iron Dose is mandatory when Intravenous (IV) Iron is populated. | Clinical | NO | NO |
| 12942 | Intravenous (IV) Iron Dose exceeds allowed length of {0}. | Clinical | NO | NO |
| 12943 | Intravenous (IV) Iron Dose must be a numeric value. | Clinical | NO | Yes |
| 12944 | Intravenous (IV) Iron is mandatory when the value in Intravenous (IV) Iron Dose is provided. | Clinical | NO | NO |
| 12945 | Intravenous (IV) Iron Dose Measure is mandatory when Intravenous (IV) Iron is populated. | Clinical | NO | NO |
| 12946 | Other Intravenous (IV) Iron Dose is mandatory when Intravenous (IV) Iron Dose Measure is Other. | Clinical | NO | NO |
| 12947 | Other Intravenous (IV) Iron Dose exceeds allowed length of {0}. | Clinical | NO | NO |
| 12948 | Oral (PO) Iron Prescribed is mandatory. | Clinical | NO | NO |
| 12949 | Oral (PO) Iron is mandatory when the value in Oral (PO) Iron Prescribed is 'Oral Iron Prescribed'. | Clinical | NO | NO |
| 12950 | Other Oral (PO) Iron is mandatory when Oral (PO) Iron is Other. | Clinical | NO | NO |
| 12951 | Other Oral (PO) Iron exceeds allowed length of {0}. | Clinical | NO | NO |
| 12952 | Oral (PO) Iron Dose is mandatory when Oral (PO) Iron is populated. | Clinical | NO | Yes |
| 12953 | Oral (PO) Iron Dose exceeds allowed length of {0}. | Clinical | NO | NO |
| 12954 | Oral (PO) Iron Dose must be a numeric value. | Clinical | NO | Yes |
| 12955 | Oral (PO) Iron Dose Measurement is mandatory when Oral (PO) Iron Dose is populated. | Clinical | NO | NO |
| 12956 | Other Oral (PO) Iron Dose Measure is mandatory when Oral (PO) Iron Dose Measure is Other. | Clinical | NO | NO |
| 12957 | Other Oral (PO) Iron Dose Measure exceeds allowed length of {0}. | Clinical | NO | NO |
| 12958 | Date Patient Education on Sodium Restriction must be a valid date. | Clinical | NO | Yes |
| 12959 | Date Patient Education on Sodium Restriction cannot be a future date. | Clinical | NO | NO |
| 12960 | Date Patient Education on Sodium Restriction must be on or after 01/01/1973. | Clinical | NO | NO |
| 12961 | Date Patient Education on Sodium Restriction cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12962 | Date Patient Education on Sodium Restriction cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12963 | Post Dialysis Weight Assessment Date must be a valid date. | Clinical | NO | Yes |

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| 12964 | Post Dialysis Weight Assessment Date cannot be a future date. | Clinical | NO | NO |
| 12965 | Post Dialysis Weight Assessment Date must be on or after 01/01/1973. | Clinical | NO | NO |
| 12966 | Post Dialysis Weight Assessment Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12967 | Post Dialysis Weight Assessment Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12968 | Post Dialysis Weight Assessment Date must be a valid date. | Clinical | NO | Yes |
| 12973 | Echocardiogram Date must be a valid date. | Clinical | NO | Yes |
| 12974 | Echocardiogram Date cannot be a future date. | Clinical | NO | NO |
| 12975 | Echocardiogram Date must be on or after 01/01/1973. | Clinical | NO | NO |
| 12976 | Echocardiogram Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12977 | Echocardiogram Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12978 | Presence of Left Ventricular Hypertrophy is mandatory when Echocardiogram Date is provided. | Clinical | NO | NO |
| 12979 | Admission Date must be a valid date. | Clinical | NO | Yes |
| 12980 | Admission Date cannot be a future date. | Clinical | NO | NO |
| 12981 | Admission Date must be on or after 01/01/1973. | Clinical | NO | NO |
| 12982 | Admission Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12983 | Admission Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12984 | All Hospital Visits is mandatory when Admission Date is populated. | Clinical | NO | NO |
| 12985 | Admission Date is mandatory when Admission from Dialysis Facility is populated. | Clinical | NO | NO |
| 12986 | Discharge Date must be a valid date. | Clinical | NO | Yes |
| 12987 | Discharge Date cannot be a future date. | Clinical | NO | NO |
| 12988 | Discharge Date must be on or after 01/01/1973. | Clinical | NO | NO |
| 12989 | Discharge Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12990 | Discharge Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 12991 | Discharge Date is mandatory when Discharge Diagnosis is populated. | Clinical | NO | NO |
| 12992 | Hospitalization Id exceeds allowed length of {0}. | Clinical | NO | NO |
| 12993 | Hospital Name exceeds allowed length of {0}. | Clinical | NO | NO |
| 12994 | Other Admission Diagnosis exceeds allowed length of {0}. | Clinical | NO | NO |
| 12995 | When Admission Diagnosis field is 'Other', then Other Admission Diagnosis field must have a value. | Clinical | NO | NO |
| 12996 | When Source of Admission Information field is 'Other', then Other Source of Admission Information field must have a value. | Clinical | NO | NO |
| 12997 | Other Source of Admission Information exceeds allowed length of {0}. | Clinical | NO | NO |
| 12998 | Influenza Vaccination Not Received cannot be set to 'True' when data exists for Influenza Vaccination. | Clinical | NO | NO |
| 12999 | Reason no Influenza Vaccination cannot be populated when Influenza Vaccination Not Received is set to 'False'. | Clinical | NO | NO |
| 13000 | Influenza Exclusion Reason cannot be populated when Influenza Vaccination Not Received is set to 'False'. | Clinical | NO | NO |
| 13001 | Reason no Influenza Vaccination is mandatory when Influenza Vaccination Not Received is checked. | Clinical | NO | NO |
| 13003 | Influenza Vaccination Date is mandatory when Influenza Vaccination Not Received is not checked. | Clinical | NO | NO |
| 13004 | Site Influenza Vaccination Received is mandatory when Influenza Vaccination Date is populated. | Clinical | NO | NO |
| 13005 | Influenza Vaccination Date cannot be a future date. | Clinical | NO | NO |
| 13006 | Influenza Vaccination Date must be on or after 01/1973. | Clinical | NO | NO |
| 13007 | Influenza Vaccination Date cannot be prior to the patient's date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |

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| 13008 | Influenza Vaccination Date cannot be after the patient's date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13009 | Influenza Vaccination Date must be a valid date. | Clinical | NO | Yes |
| 13010 | Date Patient Education on Sodium Restriction is mandatory when Education on Sodium Restriction Not Received is not checked. | Clinical | NO | NO |
| 13011 | Date Patient Education on Sodium Restriction cannot be populated when Education on Sodium Restriction Not Received is set to 'True' | Clinical | NO | NO |
| 13012 | Pneumococcal Vaccination Not Received cannot be set to 'True' when data exists for Pneumococcal Vaccination | Clinical | NO | NO |
| 13013 | Reason No Pneumococcal Vaccination cannot be populated when Pneumococcal Vaccination Not Received is set to 'False' | Clinical | NO | NO |
| 13014 | Pneumococcal Exclusion Reason cannot be populated when Pneumococcal Vaccination Not Received is set to 'False' | Clinical | NO | NO |
| 13015 | Reason No Pneumococcal Vaccination is mandatory when Pneumococcal Vaccination Not Received is checked. | Clinical | NO | NO |
| 13017 | Pneumococcal Vaccination Year is mandatory when Pneumococcal Vaccination Not Received is not checked. | Clinical | NO | NO |
| 13018 | Pneumococcal Vaccination Year cannot be a future year. | Clinical | NO | NO |
| 13019 | Pneumococcal Vaccination Year must be on or after 1973. | Clinical | NO | NO |
| 13020 | Pneumococcal Vaccination Year cannot be prior to the patient's year of Birth (<YYYY>). | Clinical | NO | NO |
| 13021 | Pneumococcal Vaccination Year cannot be after the patient's year of Death (<YYYY>). | Clinical | NO | NO |
| 13022 | Pneumococcal Vaccination Year must be a valid year. | Clinical | NO | NO |
| 13023 | Hepatitis B Vaccination Not Received cannot be set to 'True' when data exists for Hepatitis B. | Clinical | NO | NO |
| 13024 | Reason No Hepatitis B Vaccination cannot be populated when Hepatitis B Vaccination Not Received is set to 'False'. | Clinical | NO | NO |
| 13025 | Hepatitis B Exclusion Reasons cannot be populated when Hepatitis B Vaccination Not Received is set to 'False'. | Clinical | NO | NO |
| 13026 | Reason No Hepatitis B Vaccination is mandatory when Hepatitis B Vaccination Not Received is checked. | Clinical | NO | NO |
| 13028 | Hepatitis B (HBsAg) Test Date must be a valid date. | Clinical | NO | Yes |
| 13029 | Hepatitis B (HBsAg) Test Date cannot be a future date. | Clinical | NO | NO |
| 13030 | Hepatitis B (HBsAg) Test Date must be on or after 01/01/1973. | Clinical | NO | NO |
| 13031 | Hepatitis B (HBsAg) Test Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13032 | Hepatitis B (HBsAg) Test Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13033 | Hepatitis B (HBsAg) Test Date is mandatory when Hepatitis B Test Type (HBsAg) is populated. | Clinical | NO | NO |
| 13034 | Hepatitis B Test Type (HBsAg) is mandatory when Hepatitis B (HBsAg) Test date is populated. | Clinical | NO | NO |
| 13035 | Other Hepatitis B Test Type is mandatory when Hepatitis B Test Type (HBsAg) is Other. | Clinical | NO | NO |
| 13036 | Other Hepatitis B Test Type exceeds allowed length of {0}. | Clinical | NO | NO |
| 13037 | Hepatitis B Booster Date 1 must be a valid date. | Clinical | NO | Yes |
| 13038 | Hepatitis B Booster Date 1 cannot be a future date. | Clinical | NO | NO |
| 13039 | Hepatitis B Booster Date 1 must be on or after 01/01/1973. | Clinical | NO | NO |
| 13040 | Hepatitis B Booster Date 1 cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13041 | Hepatitis B Booster Date 1 cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |

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| 13042 | Hepatitis B Booster Date 2 must be a valid date. | Clinical | NO | Yes |
| 13043 | Hepatitis B Booster Date 2 cannot be a future date. | Clinical | NO | NO |
| 13044 | Hepatitis B Booster Date 2 must be on or after 01/01/1973. | Clinical | NO | NO |
| 13045 | Hepatitis B Booster Date 2 cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13046 | Hepatitis B Booster Date 2 cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13047 | Hepatitis B Booster Date 3 must be a valid date. | Clinical | NO | Yes |
| 13048 | Hepatitis B Booster Date 3 cannot be a future date. | Clinical | NO | NO |
| 13049 | Hepatitis B Booster Date 3 must be on or after 01/01/1973. | Clinical | NO | NO |
| 13050 | Hepatitis B Booster Date 3 cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13051 | Hepatitis B Booster Date 3 cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13052 | Hepatitis B Booster Date 4 must be a valid date. | Clinical | NO | Yes |
| 13053 | Hepatitis B Booster Date 4 cannot be a future date. | Clinical | NO | NO |
| 13054 | Hepatitis B Booster Date 4 must be on or after 01/01/1973. | Clinical | NO | NO |
| 13055 | Hepatitis B Booster Date 4 cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13056 | Hepatitis B Booster Date 4 cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13057 | Hepatitis B Vaccination Date 1 is mandatory when Hepatitis B Vaccination Not Received is not checked and no other Hepatitis B Vaccination dates are provided. | Clinical | NO | NO |
| 13058 | Hepatitis B Vaccination Date 1 must be a valid date. | Clinical | NO | Yes |
| 13059 | Hepatitis B Vaccination Date 1 cannot be a future date. | Clinical | NO | NO |
| 13060 | Hepatitis B Vaccination Date 1 must be on or after 01/01/1973. | Clinical | NO | NO |
| 13061 | Hepatitis B Vaccination Date 1 cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13062 | Hepatitis B Vaccination Date 1 cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13063 | Hepatitis B Vaccination Date 2 must be a valid date. | Clinical | NO | Yes |
| 13064 | Hepatitis B Vaccination Date 2 cannot be a future date. | Clinical | NO | NO |
| 13065 | Hepatitis B Vaccination Date 2 must be on or after 01/01/1973. | Clinical | NO | NO |
| 13066 | Hepatitis B Vaccination Date 2 cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13067 | Hepatitis B Vaccination Date 2 cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13068 | Hepatitis B Vaccination Date 3 must be a valid date. | Clinical | NO | Yes |
| 13069 | Hepatitis B Vaccination Date 3 cannot be a future date. | Clinical | NO | NO |
| 13070 | Hepatitis B Vaccination Date 3 must be on or after 01/01/1973. | Clinical | NO | NO |
| 13071 | Hepatitis B Vaccination Date 3 cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13072 | Hepatitis B Vaccination Date 3 cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13073 | Hepatitis B Vaccination Date 4 must be a valid date. | Clinical | NO | Yes |
| 13074 | Hepatitis B Vaccination Date 4 cannot be a future date. | Clinical | NO | NO |
| 13075 | Hepatitis B Vaccination Date 4 must be on or after 01/01/1973. | Clinical | NO | NO |
| 13076 | Hepatitis B Vaccination Date 4 cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13077 | Hepatitis B Vaccination Date 4 cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13078 | Other Hepatitis C Screen Test exceeds allowed length of {0}. | Clinical | NO | NO |
| 13079 | When Hepatitis C Screen Test field is 'Other', then Other Hepatitis C Screen Test field must have a value. | Clinical | NO | NO |
| 13080 | Hepatitis C Screening Test Date must be a valid date. | Clinical | NO | Yes |
| 13081 | Hepatitis C Screening Test Date cannot be a future date. | Clinical | NO | NO |
| 13082 | Hepatitis C Screening Test Date must be on or after 01/01/1973. | Clinical | NO | NO |

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| 13083 | Hepatitis C Screening Test Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13084 | Hepatitis C Screening Test Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13085 | Anti-HBs (mIU/mL) is mandatory when Anti-HBs Date Performed is populated. | Clinical | NO | NO |
| 13086 | Anti-HBs (mIU/mL) exceeds allowed length of {0}. | Clinical | NO | NO |
| 13087 | Anti-HBs Date Performed is mandatory when Anti-HBs (mIU/mL) is populated. | Clinical | NO | NO |
| 13088 | Anti-HBs Date Performed must be a valid date. | Clinical | NO | Yes |
| 13089 | Anti-HBs Date Performed cannot be a future date. | Clinical | NO | NO |
| 13090 | Anti-HBs Date Performed must be on or after 01/01/1973. | Clinical | NO | NO |
| 13091 | Anti-HBs Date Performed cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13092 | Anti-HBs Date Performed cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13093 | Oral Vitamin D Analog Prescribed is mandatory. | Clinical | NO | NO |
| 13094 | Oral Vitamin D Analog is mandatory when the value in Oral Vitamin D Analog Rx Prescribed is 'Oral Vitamin D Analog Prescribed'. | Clinical | NO | NO |
| 13095 | Other Oral Vitamin D Analog is mandatory when Oral Vitamin D Analog is Other. | Clinical | NO | NO |
| 13096 | Other Oral Vitamin D Analog exceeds allowed length of {0}. | Clinical | NO | NO |
| 13097 | Oral Vitamin D Analog Dosage is mandatory when Oral Vitamin D Analog is populated. | Clinical | NO | Yes |
| 13098 | Oral Vitamin D Analog Dosage exceeds allowed length of {0}. | Clinical | NO | NO |
| 13099 | Oral Vitamin D Analog Dosage must be a numeric value. | Clinical | NO | Yes |
| 13100 | Oral Vitamin D Analog Dosage Measurement is mandatory when Oral Vitamin D Analog is populated. | Clinical | NO | Yes |
| 13101 | Serum Parathyroid Hormone (PTH) Collection Date is required when Serum Parathyroid Hormone (PTH) is populated. | Clinical | NO | Yes |
| 13102 | Serum Parathyroid Hormone (PTH) Collection Date must be a valid date. | Clinical | NO | Yes |
| 13103 | Serum Parathyroid Hormone (PTH) Collection Date cannot be a future date. | Clinical | NO | NO |
| 13104 | Serum Parathyroid Hormone (PTH) Collection Date must be on or after 01/01/1973. | Clinical | NO | NO |
| 13105 | Serum Parathyroid Hormone (PTH) Collection Date cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13106 | Serum Parathyroid Hormone (PTH) Collection Date cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13107 | Other Serum Parathyroid Hormone Type (PTH) is mandatory when Serum Parathyroid Hormone Type is Other. | Clinical | NO | NO |
| 13108 | Other Serum Parathyroid Hormone Type (PTH) exceeds allowed length of {0}. | Clinical | NO | NO |
| 13109 | Serum Parathyroid Hormone (PTH) Value (pg/mL) exceeds allowed length of 30. | Clinical | NO | NO |
| 13110 | Serum Parathyroid Hormone (PTH) Value must be a numeric value. | Clinical | NO | Yes |
| 13111 | Medication Allergy exceeds allowed length of {0}. | Clinical | NO | Yes |
| 13112 | Other Medication Allergies is mandatory when Medication Allergies is Other. | Clinical | NO | NO |
| 13113 | Medication Allergies is mandatory. | Clinical | NO | NO |
| 13114 | Other Medication Allergy exceeds allowed length of {0}. | Clinical | NO | NO |
| 13115 | Normalized Protein Catabolic Rate (nPCR) Collection Date Performed must be a valid date. | Clinical | NO | Yes |
| 13116 | Normalized Protein Catabolic Rate (nPCR) Collection Date Performed cannot be a future date. | Clinical | NO | NO |
| 13117 | Normalized Protein Catabolic Rate (nPCR) Collection Date Performed must be on or after 01/01/1973. | Clinical | NO | NO |
| 13118 | Normalized Protein Catabolic Rate (nPCR) Collection Date Performed cannot be prior to the patient's Date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |

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| 13119 | Normalized Protein Catabolic Rate (nPCR) Collection Date Performed cannot be after the patient's Date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13120 | Normalized Protein Catabolic Rate (nPCR) Collection Date is Mandatory when Normalized Protein Catabolic Rate (nPCR) is populated. | Clinical | NO | Yes |
| 13121 | Normalized Protein Catabolic Rate (nPCR) must be a numeric value. | Clinical | NO | Yes |
| 13124* | Normalized Protein Catabolic Rate (nPCR) exceeds allowed length of 30. | Clinical | NO | NO |
| 13126 | Other ESA Agent is mandatory when ESA Agent Prescribed is Other. | Clinical | NO | NO |
| 13127 | Other ESA Agent Prescribed exceeds allowed length of {0}. | Clinical | NO | NO |
| 13128 | ESA Prescribed Date cannot be a future date. | Clinical | NO | NO |
| 13129 | ESA Prescribed Date must be on or after 01/1973. | Clinical | NO | NO |
| 13130 | ESA Prescribed Date cannot be prior to the patient's date of Birth (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13131 | ESA Prescribed Date cannot be after the patient's date of Death (<MM/DD/YYYY>). | Clinical | NO | NO |
| 13132 | ESA Prescribed Date must be a valid date. | Clinical | NO | Yes |
| 13133 | ESA Agent Prescribed is mandatory when ESA Prescribed is Yes. | Clinical | NO | Yes |
| 13134 | ESA Prescribed Date is mandatory when ESA Prescribed is Yes. | Clinical | NO | Yes |
| 13137 | ESA Monthly Dose is mandatory when ESA Prescribed is Yes. | Clinical | NO | Yes |
| 13138 | ESA Monthly Dose Measurement is mandatory when ESA Dose is populated. | Clinical | NO | Yes |
| 13139 | ESA Monthly Dose exceeds allowed length of {0}. | Clinical | NO | NO |
| 13140 | ESA Monthly Dose must be a numeric value. | Clinical | NO | Yes |
| 13141 | ESA Route is mandatory when ESA Prescribed is Yes. | Clinical | NO | Yes |
| 13142 | Serum Albumin must be numeric with no more than 2 decimal places. | Clinical | NO | Yes |
| 13143 | Serum Albumin Lab Method is mandatory when Serum Albumin is populated. | Clinical | NO | Yes |
| 13144 | Serum Albumin Lower Limit must be numeric with no more than 2 decimal places. | Clinical | NO | NO |
| 13145 | Corrected Serum Calcium must be numeric with no more than 1 decimal place. | Clinical | NO | NO |
| 13146 | Uncorrected Serum Calcium must be numeric with no more than 1 decimal place. | Clinical | NO | NO |
| 13147 | Uncorrected Serum Calcium Date is mandatory when Corrected Serum Calcium is populated. | Clinical | NO | Yes |
| 13148 | Hemoglobin must be numeric with no more than 1 decimal place. | Clinical | NO | Yes |
| 13149 | Ferritin must be numeric with no decimal place. | Clinical | NO | Yes |
| 13150 | TSAT must be numeric with no decimal place. | Clinical | NO | Yes |
| 13151 | Reticulocyte Hemoglobin (CHr) must be numeric with no decimal place. | Clinical | NO | Yes |
| 13152 | Serum Creatinine must be numeric with no more than 1 decimal place. | Clinical | NO | Yes |
| 13153 | Serum Creatinine Date must be the same as the Kt/V Date. | Clinical | Yes | NO |
| 13423 | Kt/V Date is mandatory when Pre-Dialysis Weight is populated. | Clinical | NO | Yes |
| 13424 | BUN Post-Dialysis must be numeric with no decimal place. | Clinical | NO | Yes |
| 13425 | Pho must be numeric with no more than 1 decimal place. | Clinical | NO | NO |
| 13427 | Could not find Clinical Question for: {0} | Clinical | NO | NO |
| 13429 | Could not find Clinical Question for the patient's collection type. Question is {0}, collection type is {1}. | Clinical | NO | NO |
| 13430 | Clinical period cannot be after patient's date of death {0} | Clinical | NO | NO |
| 13431 | Serum Albumin Date must be a valid date. | Clinical | NO | Yes |
| 13432 | Corrected Serum Calcium Date must be a valid date. | Clinical | NO | Yes |
| 13433 | Serum Creatinine Date must be a valid date. | Clinical | NO | Yes |
| 13434 | Reticulocyte Hemoglobin (CHr) Date must be a valid date. | Clinical | NO | Yes |

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| 13435 | Ferritin Date must be a valid date. | Clinical | NO | Yes |
| 13438 | Hemoglobin Collection Date must be a valid date. | Clinical | NO | Yes |
| 13439 | Intravenous (IV) Iron Prescribed Date must be a valid date. | Clinical | NO | Yes |
| 13440 | Normalized Protein Catabolic Rate (nPCR) Collection Date must be a valid date. | Clinical | NO | Yes |
| 13441 | Date Antibiotic Prescribed must be a valid date. | Clinical | NO | Yes |
| 13442 | Blood Culture Date must be a valid date. | Clinical | NO | Yes |
| 13443 | Pho Date must be a valid date. | Clinical | NO | Yes |
| 13444 | TSAT Date must be a valid date. | Clinical | NO | Yes |
| 13445 | Uncorrected Serum Calcium Date must be a valid date. | Clinical | NO | Yes |
| 13447 | Weekly Kt/V Date must be a valid date. | Clinical | NO | Yes |
| 13448 | Kt/V Date must be a valid date. | Clinical | NO | Yes |
| 13449 | Date Access Type Changed must be a valid date. | Clinical | NO | Yes |
| 13450 | AV Fistula Usable Date must be a valid date. | Clinical | NO | Yes |
| 13451 | AVF Creation Date must be a valid date. | Clinical | NO | Yes |
| 13452 | Date of Reported Dialysis Session must be a valid date. | Clinical | NO | Yes |
| 13453 | Antibiotic Dose exceeds allowed length of {0}. | Clinical | NO | NO |
| 13454 | Infection Hospitalization Date is mandatory when value in Infection Requires Hospitalization is 'Infection requires hospitalization'. | Clinical | NO | NO |
| 13457 | Org Patient Id exceeds allowed length of 30 | Clinical | NO | NO |
| 20007 | Remove action is not yet supported in CROWNWeb. Found remove action for: {0} | Clinical | NO | NO |
| 20016* | Multiple patients mapped to the same external id: {0} | Clinical | NO | NO |
| 99999 | An unexpected error happened while processing the file. Error details are: {0} | Clinical | NO | NO |
| *Error Code and Message can only be replicated by altering data within the database. | | | | |