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CROWNWeb 4.0

# 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**

<b>Document Name</b>	<b>Document Number</b>	<b>Issuance Date</b>
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 - EDI (XML) Process Flow**, above. 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.

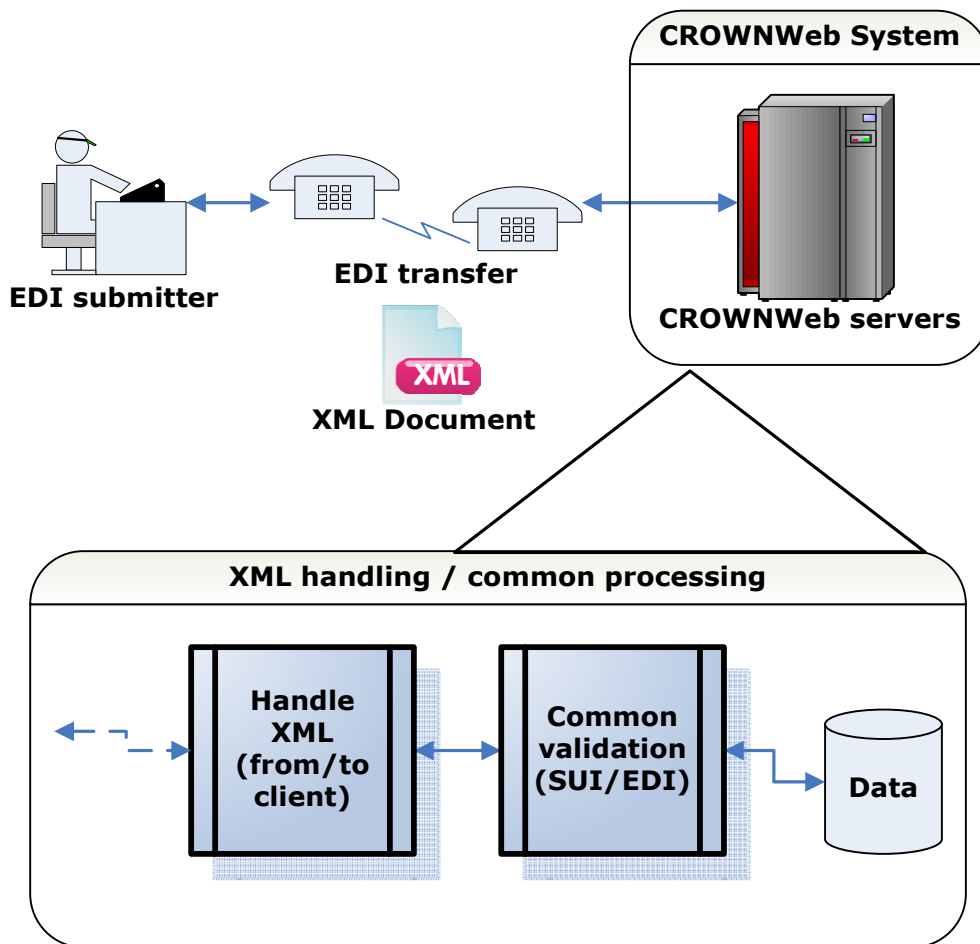
### **6.1.1.2. DESIGN GOALS**

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.
- 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.

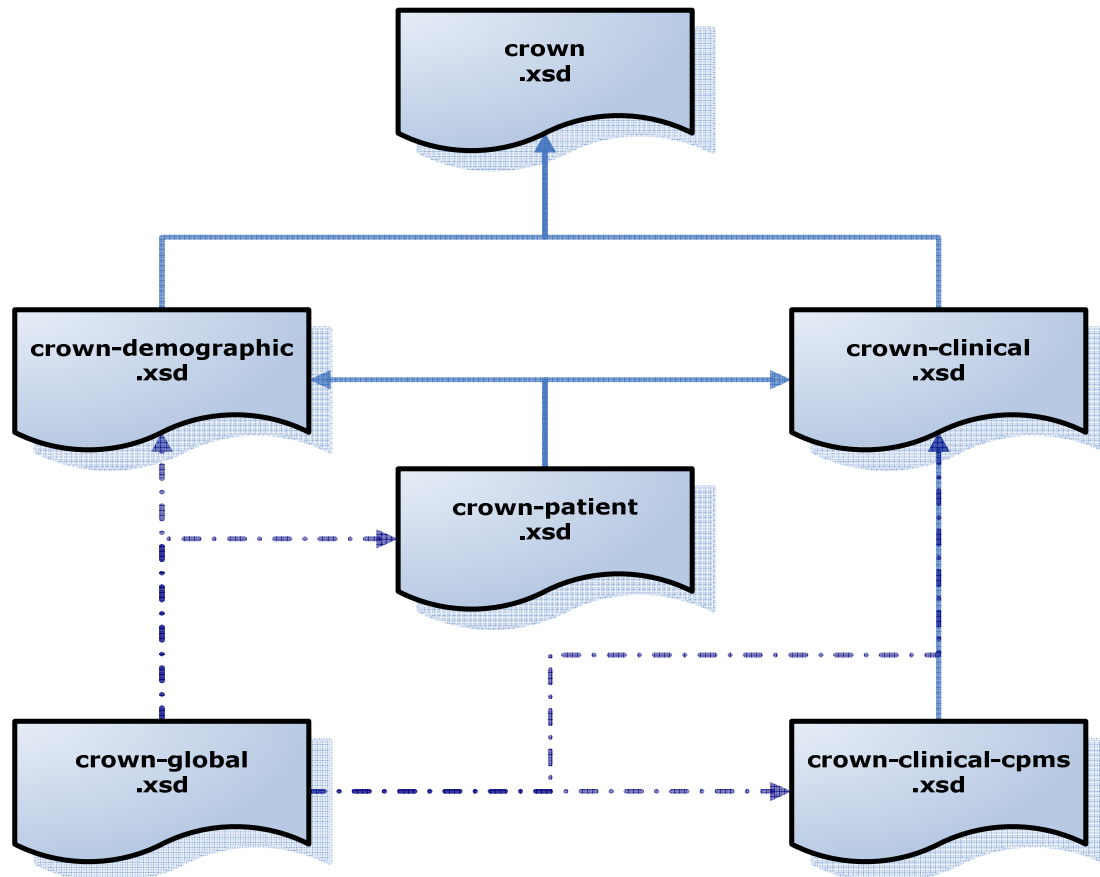
#### **6.1.4.1. XML SCHEMA LAYOUT**

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 – XSD Document Relationships**. 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 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**

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

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

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

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

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

<b>XSD</b>	<b>schema type</b>	<b>element or attribute</b>	<b>item type</b>	<b>Business Name</b>	<b>Rqmt ID</b>
<b>crown-patient.xsd</b>	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
<b>crown-clinical-cpms.xsd</b>	CPMs	medicationAllergy	MedicationAllergy	N/A: Organize and support consistency among other data elements	N/A
<b>crown-clinical-cpms.xsd</b>	CPMs	adequacy	Adequacy	N/A: Organize and support consistency among other data elements	N/A
<b>crown-clinical-cpms.xsd</b>	CPMs	esaPrescription	ESAPrescription	N/A: Organize and support consistency among other data elements	N/A
<b>crown-clinical-cpms.xsd</b>	CPMs	fluidWeightManagement	FluidWeightManagement	N/A: Organize and support consistency among other data elements	N/A
<b>crown-clinical-cpms.xsd</b>	CPMs	hospitalization	Hospitalization	N/A: Organize and support consistency among other data elements	N/A
<b>crown-clinical-cpms.xsd</b>	CPMs	vaccinations	Vaccinations	N/A: Organize and support consistency among other data elements	N/A
<b>crown-clinical-cpms.xsd</b>	CPMs	vascularAccessInfection	Infection	N/A: Organize and support consistency among other data elements	N/A
<b>crown-clinical-cpms.xsd</b>	CPMs	ironCpm	IronCpm	N/A: Organize and support consistency among other data elements	N/A
<b>crown-clinical-cpms.xsd</b>	CPMs	vitaminDCpm	VitaminDCpm	N/A: Organize and support consistency among other data elements	N/A

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

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



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

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

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

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

<b>XSD</b>	<b>schema type</b>	<b>element or attribute</b>	<b>item type</b>	<b>Business Name</b>	<b>Rqmt ID</b>
<b>crown-clinical-cpms.xsd</b>	HepatitisB	boosterDate4	xsd:date	Hepatitis B Booster Dates4	RQMT_1022
<b>crown-clinical-cpms.xsd</b>	HepatitisB	exclusion	Exclusion	Reason No Hepatitis B Immunization	RQMT_1110
<b>crown-clinical-cpms.xsd</b>	HepatitisB	exclusion.medical	ExclusionMedical	Hepatitis B Medical Reasons	RQMT_1111
<b>crown-clinical-cpms.xsd</b>	HepatitisB	exclusion.patient	ExclusionPatient	Hepatitis B Patient Reasons	RQMT_1111
<b>crown-clinical-cpms.xsd</b>	HepatitisB	antiHBs	AntiHBs	Anti-HBs (mIU/mL)	RQMT_1001
<b>crown-clinical-cpms.xsd</b>	AntiHBs	testResult	xsd:decimal	Anti-HBs	RQMT_1001
<b>crown-clinical-cpms.xsd</b>	AntiHBs	testDate	xsd:date	Anti-HBs Date Performed	RQMT_1002
<b>crown-clinical-cpms.xsd</b>	HepatitisC	testType	HepCTestType	Hepatitis C screening Tests	RQMT_1024
<b>crown-clinical-cpms.xsd</b>	HepatitisC	testDate	xsd:date	Hepatitis C Screening Test Date	RQMT_1025
<b>crown-clinical-cpms.xsd</b>	ParathyroidHormone	iPth	PTH	Serum Parathyroid Hormone Type (iPTH)	RQMT_1012
<b>crown-clinical-cpms.xsd</b>	ParathyroidHormone	collectionDate	xsd:date	Serum Parathyroid Hormone (PTH) Collection Date	RQMT_989
<b>crown-clinical-cpms.xsd</b>	ParathyroidHormone	pthValue	xsd:decimal	Serum Parathyroid Hormone (PTH) Value	RQMT_988
<b>crown-clinical-cpms.xsd</b>	ParathyroidHormone	pthMeasure	LabMeasure	Serum Parathyroid Hormone (PTH) Value	RQMT_988
<b>crown-clinical-cpms.xsd</b>	NPCRValue	value	xsd:decimal	Normalized Protein Catabolic (nPCR) Rate	RQMT_1009
<b>crown-clinical-cpms.xsd</b>	NPCRValue	date	date	Normalized Protein Catabolic (nPCR) Collection Date	RQMT_1010
<b>crown-clinical-cpms.xsd</b>	VascularAccess	accessType	VascularAccessType	Access Type for Dialysis	RQMT_395
<b>crown-clinical-cpms.xsd</b>	VascularAccess	accessDate	xsd:date	Date Access Type for Dialysis Changed	RQMT_1138
<b>crown-clinical-cpms.xsd</b>	VascularAccess	dxSessDate	xsd:date	Date of Reported Dialysis Session	RQMT_399
<b>crown-clinical-cpms.xsd</b>	VascularAccess	avfCreateDate	xsd:date	AVF Creation Date	RQMT_1139
<b>crown-clinical-cpms.xsd</b>	VascularAccess	avfUseDate	xsd:date	AVF Usable Date	RQMT_401
<b>crown-clinical-cpms.xsd</b>	VascularAccess	avfMaturing	xsd:boolean	Maturing AVF Present?	RQMT_396
<b>crown-clinical-cpms.xsd</b>	VascularAccess	avfState	AvState	AV Fistula State	RQMT_402

<b>XSD</b>	<b>schema type</b>	<b>element or attribute</b>	<b>item type</b>	<b>Business Name</b>	<b>Rqmt ID</b>
<b>crown-clinical-cpms.xsd</b>	VascularAccess	avgMaturing	xsd:boolean	Maturing Graft Present?	RQMT_397
<b>crown-clinical-cpms.xsd</b>	VascularAccess	avgState	AvState	AV Graft State	RQMT_403
<b>crown-clinical-cpms.xsd</b>	VascularAccess	survey	xsd:boolean	Graft Survey	RQMT_408
<b>crown-clinical-cpms.xsd</b>	VascularAccess	exam	AnswerFrequencyA	Access Physical Examination	RQMT_404
<b>crown-clinical-cpms.xsd</b>	VascularAccess	ppp	AnswerFrequencyA	Pre Pump Pressure	RQMT_406
<b>crown-clinical-cpms.xsd</b>	VascularAccess	svp	AnswerFrequencyB	Static Venous Pressure	RQMT_409
<b>crown-clinical-cpms.xsd</b>	VascularAccess	dop	AnswerFrequencyB	Doppler	RQMT_411
<b>crown-clinical-cpms.xsd</b>	VascularAccess	iaf	AnswerFrequencyB	Intra-Access Flow	RQMT_413
<b>crown-clinical-cpms.xsd</b>	VascularAccess	action  "action" currently not used by the system except for Medication Allergy section	Action {declare}	N/A - System Action	N/A
<b>crown-clinical-cpms.xsd</b>	VascularAccessType	listed	ListedVascularAccessType	Access Type for Dialysis	RQMT_395
<b>crown-clinical-cpms.xsd</b>	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
<b>crown-clinical-cpms.xsd</b>	ListedVascularAccessType		enumeration: AVOnly, AVFwAVG, AVFwCatheter, AVGonly, AVGwCatheter, CatheterOnly, PortOnly, Other	Access Type for Dialysis	RQMT_395
<b>crown-clinical-cpms.xsd</b>	AvState		enumeration: NotPresent, Created, Active, Inactive, Removed	AV Fistula State	RQMT_402
<b>crown-clinical-cpms.xsd</b>	AvState		enumeration: NotPresent, Created, Active, Inactive, Removed	AV Graft State	RQMT_403
<b>crown-clinical-cpms.xsd</b>	BPStatus		enumeration: Low, High, Deviation	Home Blood Pressure Status	RQMT_1119

<b>XSD</b>	<b>schema type</b>	<b>element or attribute</b>	<b>item type</b>	<b>Business Name</b>	<b>Rqmt ID</b>
<b>crown-clinical-cpms.xsd</b>	HospitalVisit		enumeration: ER, Hospitalization, ERResultingHospitalization	All Hospital Visits	RQMT_1026
<b>crown-clinical-cpms.xsd</b>	AdvanceDirective		enumeration: DNR, DNI	Advance Directive	RQMT_1127
<b>crown-clinical-cpms.xsd</b>	AccessInfectionSite		enumeration: Uncuffed, Fistula, Tunneled, Graft, Catheter, Not Access Related	Infection Type	RQMT_1036
<b>crown-clinical-cpms.xsd</b>	MedicationAllergy	listed	ListedMedicationAllergy	Medication Allergies	RQMT_1050
<b>crown-clinical-cpms.xsd</b>	MedicationAllergy	other	xsd:string	Other Medication Allergies	RQMT_1219
<b>crown-clinical-cpms.xsd</b>	MedicationAllergy	action <i>This is currently the only "action" used in the schema. (Simple Type)</i>	Action {declare}	N/A - System Action	N/A
<b>crown-clinical-cpms.xsd</b>	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
<b>crown-clinical-cpms.xsd</b>	ESAAgent	listed	ListedESAAgent	ESA Agent Prescribed	RQMT_976
<b>crown-clinical-cpms.xsd</b>	ESAAgent	other	xsd:string	Other ESA Agent	RQMT_1220
<b>crown-clinical-cpms.xsd</b>	ListedESAAgent		enumeration: Epoetin alfa, Epoetin beta, Darbepoetin alfa	ESA Agent Prescribed	RQMT_976
<b>crown-clinical-cpms.xsd</b>	HepBTestType	listed	ListedHepBTestType	Hepatitis B Test Type (HBsAg)	RQMT_1000
<b>crown-clinical-cpms.xsd</b>	HepBTestType	other	xsd:string	Other Hepatitis B Test Type	RQMT_1224
<b>crown-clinical-cpms.xsd</b>	ListedHepBTestType		enumeration: HBsAG, Anti-HBc, Anti-HBs, IgM Anti-HBc	Hepatitis B Test Type	RQMT_1000
<b>crown-clinical-cpms.xsd</b>	HepCTestType	listed	ListedHepCTestType	Hepatitis C screening Tests	RQMT_1024

<b>XSD</b>	<b>schema type</b>	<b>element or attribute</b>	<b>item type</b>	<b>Business Name</b>	<b>Rqmt ID</b>
<b>crown-clinical-cpms.xsd</b>	HepCTestType	other	xsd:string	Other Hepatitis C Screening Tests	RQMT_1225
<b>crown-clinical-cpms.xsd</b>	ListedHepCTestType		enumeration: EIA, CIA, RIBA	Hepatitis C screening Tests	RQMT_1024
<b>crown-clinical-cpms.xsd</b>	Diagnosis	listed	ListedDiagnosis	Hospital Admission Diagnosis	RQMT_1029
<b>crown-clinical-cpms.xsd</b>	Diagnosis	other	xsd:string	Other Hospital Admission Diagnosis	RQMT_1222
<b>crown-clinical-cpms.xsd</b>	ListedDiagnosis		enumeration: Cardiovascular, Neurological, Musculoskeletal, Respiratory, Genitourinary, Gastrointestinal, Endocrine, Sepsis, Vascular Access	Hospital Admission Diagnosis	RQMT_1029
<b>crown-clinical-cpms.xsd</b>	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
<b>crown-clinical-cpms.xsd</b>	ListedInfectionIdentification		enumeration: Clinical suspicion, Previous facility	Method of Identifying Vascular Access Infection	RQMT_1033
<b>crown-clinical-cpms.xsd</b>	IVIron	listed	ListedIVIron	Intravenous (IV) Iron	RQMT_981
<b>crown-clinical-cpms.xsd</b>	IVIron	other	xsd:string	Other Intravenous (IV) Iron	RQMT_1227
<b>crown-clinical-cpms.xsd</b>	IVIron	dose	xsd:decimal	(IV)Iron Dose	RQMT_982
<b>crown-clinical-cpms.xsd</b>	IVIron	doseMeasure	DoseMeasure	Other Iron Dose Measure	RQMT_1227



<b>XSD</b>	<b>schema type</b>	<b>element or attribute</b>	<b>item type</b>	<b>Business Name</b>	<b>Rqmt ID</b>
<b>crown-clinical-cpms.xsd</b>	IVIron	date	xsd:date	Iron Dose Date	
<b>crown-clinical-cpms.xsd</b>	ListedIVIron		enumeration: Dextran, Gluconate, Sucrose	Intravenous (IV) Iron	RQMT_981
<b>crown-clinical-cpms.xsd</b>	POIron	listed	ListedPOIron	Oral (PO) Iron	RQMT_985
<b>crown-clinical-cpms.xsd</b>	POIron	other	xsd:string	Other Oral (PO) Iron	RQMT_1228
<b>crown-clinical-cpms.xsd</b>	POIron	dose	xsd:string	Oral (PO) Iron Dose	RQMT_986
<b>crown-clinical-cpms.xsd</b>	POIron	doseMeasure	DoseMeasure {mg}	Oral (PO) Iron Dose	RQMT_986
<b>crown-clinical-cpms.xsd</b>	POIron	date	xsd:date	Iron Dose Date	N/A
<b>crown-clinical-cpms.xsd</b>	ListedPOIron		enumeration: Fumarate, Sulfate, Gluconate	Oral (PO) Iron	RQMT_985
<b>crown-clinical-cpms.xsd</b>	NonOralVitaminDAnalog	listed	ListedNonOralVitaminDAnalog	Non-Oral Vitamin D Analog	RQMT_1014
<b>crown-clinical-cpms.xsd</b>	NonOralVitaminDAnalog	other	xsd:string	Other Non-Oral Vitamin D Analog	RQMT_1230
<b>crown-clinical-cpms.xsd</b>	ListedNonOralVitaminDAnalog		enumeration: Calcitriol, Doxercalciferol, Paricalcitol	Non-Oral Vitamin D Analog	RQMT_1014
<b>crown-clinical-cpms.xsd</b>	OralVitaminDAnalog	listed	ListedOralVitaminDAnalog	Oral Vitamin D Analog	RQMT_1018
<b>crown-clinical-cpms.xsd</b>	OralVitaminDAnalog	other	xsd:string	Other Oral Vitamin D Analog	RQMT_1231
<b>crown-clinical-cpms.xsd</b>	ListedOralVitaminDAnalog		enumeration: Calderol, DeltaD3, DHT Intenol, DHT, Drisdol, Hectorol, Rocaltrol, D3, D2, Zemplar	Oral Vitamin D Analog	RQMT_1018
<b>crown-clinical-cpms.xsd</b>	HKtVMethod	listed	ListedHKtVMethod	Kt/V Hemodialysis Method	RQMT_323
<b>crown-clinical-cpms.xsd</b>	HKtVMethod	other	xsd:string	Kt/V Hemodialysis Method	RQMT_323
		Other is not currently collected by the CROWN system for this field. Do not use.			
<b>crown-clinical-cpms.xsd</b>	ListedHKtVMethod		enumeration: UKM, Daugirdas2, Depner, URR	Kt/V Hemodialysis Method	RQMT_323
<b>crown-clinical-cpms.xsd</b>	PKtVMethod	listed	ListedPKtVMethod	Kt/V Peritoneal Dialysis Method	RQMT_326

<b>XSD</b>	<b>schema type</b>	<b>element or attribute</b>	<b>item type</b>	<b>Business Name</b>	<b>Rqmt ID</b>
<b>crown-clinical-cpms.xsd</b>	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
<b>crown-clinical-cpms.xsd</b>	ListedPKtVMethod		enumeration: PercentBodyWgt, Hume, Watson	Kt/V Peritoneal Dialysis Method	RQMT_326
<b>crown-clinical-cpms.xsd</b>	PTH	listed	ListedPTH	Serum Parathyroid Hormone Type (iPTH)	RQMT_1012
<b>crown-clinical-cpms.xsd</b>	PTH	other	xsd:string	Other Serum Parathyroid Hormone Type (iPTH)	
<b>crown-clinical-cpms.xsd</b>	ListedPTH		enumeration: iPTH, NA	Serum Parathyroid Hormone Type (iPTH)	RQMT_1012
<b>crown-clinical-cpms.xsd</b>	InfectionSource	listed	ListedInfectionSource	Source of Vascular Infection	RQMT_1037
<b>crown-clinical-cpms.xsd</b>	InfectionSource	other	xsd:string	Other Source of Vascular Infection	RQMT_1236
<b>crown-clinical-cpms.xsd</b>	ListedInfectionSource		enumeration: Blood, Wound, Vascular access	Source of Vascular Infection	RQMT_1037
<b>crown-clinical-cpms.xsd</b>	LabValues	hgb	HgbValue	Hemoglobin	RQMT_303
<b>crown-clinical-cpms.xsd</b>	LabValues	fer	FerValue	Serum Ferritin	RQMT_307
<b>crown-clinical-cpms.xsd</b>	LabValues	tsat	TsatValue	Iron Saturation (TSAT) Percentage	RQMT_309
<b>crown-clinical-cpms.xsd</b>	LabValues	chr	ChrValue	Reticulocyte Hemoglobin (CHr)	RQMT_311
<b>crown-clinical-cpms.xsd</b>	LabValues	phos	PhosValue	Serum Phosphorus	RQMT_315
<b>crown-clinical-cpms.xsd</b>	LabValues	cca	CcaValue	Corrected Serum Calcium	RQMT_317
<b>crown-clinical-cpms.xsd</b>	LabValues	uca	UcaValue	Uncorrected Serum Calcium	RQMT_319
<b>crown-clinical-cpms.xsd</b>	LabValues	alb	AlbValue	Serum Albumin	RQMT_296
<b>crown-clinical-cpms.xsd</b>	LabValues	cre	CreValue	Serum Creatinine	RQMT_300
<b>crown-clinical-cpms.xsd</b>	HgbValue	value	DecimalDateGroup	Hemoglobin Value	RQMT_303
<b>crown-clinical-cpms.xsd</b>	HgbValue	date	DecimalDateGroup	Hemoglobin Collection Date	RQMT_304
<b>crown-clinical-cpms.xsd</b>	FerValue	value	IntDateGroup	Serum Ferritin Value	RQMT_307

<b>XSD</b>	<b>schema type</b>	<b>element or attribute</b>	<b>item type</b>	<b>Business Name</b>	<b>Rqmt ID</b>
<b>crown-clinical-cpms.xsd</b>	FerValue	date	IntDateGroup	Serum Ferritin Collection Date	RQMT_308
<b>crown-clinical-cpms.xsd</b>	TsatValue	value	IntDateGroup	Iron Saturation (TSAT) Percentage Value	RQMT_309
<b>crown-clinical-cpms.xsd</b>	TsatValue	date	IntDateGroup	Iron Saturation (TSAT) Percentage Collection Date	RQMT_310
<b>crown-clinical-cpms.xsd</b>	ChrValue	value	IntDateGroup	Reticulocyte Hemoglobin (CHr) Value	RQMT_311
<b>crown-clinical-cpms.xsd</b>	ChrValue	date	IntDateGroup	Reticulocyte Hemoglobin (CHr) Collection Date	RQMT_312
<b>crown-clinical-cpms.xsd</b>	PhosValue	value	DecimalDateGroup	Serum Phosphorus Value	RQMT_315
<b>crown-clinical-cpms.xsd</b>	PhosValue	date	DecimalDateGroup	Serum Phosphorus Collection Date	RQMT_316
<b>crown-clinical-cpms.xsd</b>	CcaValue	value	DecimalDateGroup	Corrected Serum Calcium Value	RQMT_317
<b>crown-clinical-cpms.xsd</b>	CcaValue	date	DecimalDateGroup	Corrected Serum Calcium Collection Date	RQMT_318
<b>crown-clinical-cpms.xsd</b>	UcaValue	value	DecimalDateGroup	Uncorrected Serum Calcium Value	RQMT_319
<b>crown-clinical-cpms.xsd</b>	UcaValue	date	DecimalDateGroup	Uncorrected Serum Calcium Collection Date	RQMT_320
<b>crown-clinical-cpms.xsd</b>	AlbValue	method	AlbMethod	Lab Method (for Serum Albumin)	RQMT_299
<b>crown-clinical-cpms.xsd</b>	AlbValue	lowValue	xsd:decimal	Serum Albumin Lower Limit	RQMT_298
<b>crown-clinical-cpms.xsd</b>	AlbValue	value	DecimalDateGroup	Serum Albumin Value	RQMT_296
<b>crown-clinical-cpms.xsd</b>	AlbValue	date	DecimalDateGroup	Serum Albumin Collection Date	RQMT_297
<b>crown-clinical-cpms.xsd</b>	CreValue	value	DecimalDateGroup	Serum Creatinine Value	RQMT_300
<b>crown-clinical-cpms.xsd</b>	CreValue	date	DecimalDateGroup	Serum Creatinine Collection Date	RQMT_301
<b>crown-clinical-cpms.xsd</b>	CrcValue	value	xsd:decimal	Creatinine Clearance	RQMT_343
<b>crown-clinical-cpms.xsd</b>	CrcValue	unit	CrcUnit	Creatinine Clearance Method	RQMT_746
<b>crown-clinical-cpms.xsd</b>	AlbMethod		enumeration: BCG, BCP	Lab Method (for Serum Albumin)	RQMT_299
<b>crown-clinical-cpms.xsd</b>	BsaMethod	listed	ListedBsaMethod	Body Surface Area Method	RQMT_327

<b>XSD</b>	<b>schema type</b>	<b>element or attribute</b>	<b>item type</b>	<b>Business Name</b>	<b>Rqmt ID</b>
<b>crown-clinical-cpms.xsd</b>	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
<b>crown-clinical-cpms.xsd</b>	ListedBsaMethod		enumeration: DuBoisDuBois	Body Surface Area Method	RQMT_327
<b>crown-clinical-cpms.xsd</b>	CrcUnit		enumeration: LWK, LWK173M2	Creatinine Clearance Method	RQMT_746
<b>crown-global.xsd</b>	Address	street1	NonEmptyString	Patient Street Address (Mailing)	RQMT_123
<b>crown-global.xsd</b>	Address	street1	NonEmptyString	Patient Address (Physical)	RQMT_139
<b>crown-global.xsd</b>	Address	street2	NonEmptyString	Patent Street Address 2 (Mailing)	RQMT_124
<b>crown-global.xsd</b>	Address	street2	NonEmptyString	Patient Address 2 (Physical)	RQMT_140
<b>crown-global.xsd</b>	Address	city	NonEmptyString	Patient City (Mailing)	RQMT_125
<b>crown-global.xsd</b>	Address	city	NonEmptyString	Patient City (Physical)	RQMT_141
<b>crown-global.xsd</b>	Address	state	State	Patient State of Residence	RQMT_122
<b>crown-global.xsd</b>	Address	state	State	(Mailing) and (Physical)	RQMT_138
<b>crown-global.xsd</b>	Address	zip	ZipCode	Patient Zip Code (Mailing)	RQMT_126
<b>crown-global.xsd</b>	Address	zip	ZipCode	Patient Zip Code (Physical)	RQMT_143
<b>crown-global.xsd</b>	Address	zipExt	ZipCodeExt	Patient + 4 Zip Code (Mailing)	RQMT_127
<b>crown-global.xsd</b>	Address	zipExt	ZipCodeExt	Patient + 4 Zip Code (physical)	RQMT_144
<b>crown-global.xsd</b>	Address	county	NonEmptyString	Patient County (Physical)	RQMT_142
<b>crown-global.xsd</b>	Address	addressType	AddressType	N/A: Organize and support consistency among other data elements.	N/A
<b>crown-global.xsd</b>	AreaCode		xsd:string	Phone Number Area code	Unavailable
<b>crown-global.xsd</b>	DialysisPeriod		enumeration: Day, Nocturnal	Dialysis Time Period	RQMT_1073
<b>crown-global.xsd</b>	IntervalUnit		enumeration: DHM, Hours, Minutes	N/A: Organize and support consistency among other data elements	N/A

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

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

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

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



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

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

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

Successful submissions and those containing errors are reported immediately upon the completion of processing for an uploaded EDI submission. Results can be reviewed within the EDI 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
<b>CROWN</b>	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.
<b>CROWNWeb</b>	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/>.

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

## **10. APPENDICES**

NOT APPLICABLE.