

NRDR CTC Data Exchange

Version 1.6

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NRDR CTC Exam Data Exchange

# Revision History

|  |  |  |
| --- | --- | --- |
| Date | Version | Description |
| 09/04/2018 | 1.0 | Baseline  |
| 09/10/2019 | 1.1 | Error message updated for error code C3045 |
| 09/25/2019 | 1.1 | Error message updated for error code: C3131, C3132  |
| 11/13/2019 | 1.1 | Added error code C3166 |
| 04/15/2020 | 1.2 | Description of CTC 1.1 JSON schema added.Error message C3395 added. |
| 06/03/2020 | 1.3 | Description of CTC 1.0/1.1 JSON schema deleted.Description of CTC 1.2 JSON schema added.Error messages marked as obsolete: C3015, C3411, C3425, C3431, C3433, C3441, C3443, C3451, C3453, C3481, C3483, C3511, C3513, C3521, C3523Error message text updated for error: С3148 |
| 02/24/2021 | 1.4 | Description of CTC 1.2 JSON schema deleted.Description of CTC 1.3 JSON schema added. Error messages added: C3210, C3211, C3212, C3220, C3221, C3210C3211, C3212, C3220, C3221, C3310, C3312, C3313, C3314, C3315, C3316, C3317Error message updated: C3201 |
| 04/08/2021 | 1.5 | Error message text updated for error: C3381 |
| 01/09/2023 | 1.5 | Error message C3008 marked as obsolete |
| 06/02/2023 | 1.6 | Added API response statuses definitions and examples |
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|  |  |  |
|  |  |  |

# CTC Data Elements

This document describes the CTC Exam data elements, JSON schema, NRDR CTC APIs and error messages. It also demonstrates how to use the authorization token when consuming the CTC APIs.

## CTC Exam Data Submission



The diagram below depicts the events that take place in the ACR SSO during the authentication and authorization processes. Please refer to the [*ACR SSO Authentication*](https://nrdrsupport.acr.org/support/solutions/articles/11000090513) *article* for a detailed description of ACR SSO service.



The NRDR CTC APIs are a set of REST web services. They return an acknowledgement to the caller when submission is received. It is the responsibility of the caller to capture this acknowledgement to ensure the submission has reached the ACR SSO successfully.

The frequency of the data submission is defined by the partner, however, the ACR prefers the submission to happen more frequent so that the facility/physician will have a faster turnaround time for review and be able to resubmit data before the CMS submission deadline if needed.

Partners will be able to query the status of the submitted transactions by using NRDR CTC API.

## Data Model

CTC data to be submitted to the ACR NRDR shall be “wrapped” in a transaction. Each transaction has one or more Exams.

This approach provides the flexibility of submitting multiple exams for a facility within a single transaction. Note: each transaction shall contain exams for one facility.

As the data required by CTC for an exam may be coming from different systems within a facility, the CTC web service will accept transactions with incomplete data and merge them into a single exam record when the rest of the required data elements arrive in subsequent transactions.

The following composite key shall be used to identify unique CTC exam record:

* Facility ID
* Exam Date
* Patient ID(s)

To define if the patient from the uploaded exam exists in the patient dictionary of the facility in the NRDR, the system searches for existing patient by any of the following patient identifiers:

* SSN,
* Medicare Beneficiary ID,
* New Medicare Beneficiary ID,
* Other ID (patient’s MRN can be used as the Other ID).

However, the different systems which will provide exam data to CTC must all agree on all common patient IDs (SSN, Old Medicare Beneficiary ID, New Medicare Beneficiary ID, Other ID (patient’s MRN can be used as the Other ID)), that will be used in the transactions. Otherwise, we will not be able to merge them into a single exam record automatically.

For each exam in a transaction the API will base on its composite key to determine if it should create a new examination record or update an existing record in the CTC database. If the composite key is found in the CTC database, the API will update the existing record; otherwise, it will create a new examination record.

# JSON Schema

To successfully submit a transaction, you must provide the following minimum required data elements:

* Transaction\_ID,
* Transaction\_DateTime,
* Num\_of\_Exam\_Included,
* Facility\_ID,
* PartnerID,
* AppID,
* Date\_of\_Examination,
* Either Patient\_SSN or Other\_ID or Medicare Beneficiary ID or New Medicare Beneficiary ID.

## CTC 1.3 JSON Schema

This schema describes the data elements in a transaction for CTC file version 1.3:

{

 "name": "CTC\_Exam\_Transaction",

 "Properties": {

 "Transaction\_ID": {

 "type": "string",

 "required": true

 },

 "Transaction\_DateTime": {

 "type": "string",

 "required": true

 },

 "Num\_of\_Exam\_Included": {

 "type": "number",

 "required": true

 },

 "Facility\_ID": {

 "type": "string",

 "required": true

 },

 "PartnerID": {

 "type": "string",

 "required": true

 },

 "AppID": {

 "type": "string",

 "required": true

 },

 "Previous\_Transaction\_ID": {

 "type": "string",

 "required": false

 },

 "CTC\_File\_Version\_Num": {

 "type": "string",

 "required": true

 },

 "Exam": {

 "type": "array",

 "required": true,

 "properties": {

 "Update\_Method": {

 "type": "string",

 "required": false

 },

 "Patient\_SSN": {

 "type": "string",

 ‘required": false

 },

 "Other\_ID": {

 "type": "string",

 "required": false

 },

 "Description": {

 "type": "string",

 "required": false

 },

 "Patient\_First\_Name": {

 "type": "string",

 "required": false

}

 "Patient\_Middle\_Name": {

 "type": "string",

 "required": false

 },

 "Patient\_Last\_Name": {

 "type": "string",

 "required": true

 },

 "Medicare\_Beneficiary\_ID": {

 "type": "string",

 "required": false

 },

 "New\_Medicare\_Beneficiary\_ID": {

 "type": "string",

 "required": false

 },

 "Date\_of\_Birth": {

 "type": "string",

 "required": true

 },

 "Patient\_Sex": {

 "type": "string",

 "required": true

 },

 "Race": {

 "type": "array",

 "required": false

 },

 "Hispanic\_Origin": {

 "type": "string",

 "required": false

 },

 "Health\_Insurance": {

 "type": "array",

 "required": false

 },

 "Health\_Insurance\_Other": {

 "type": "string",

 "required": false

 },

 "Education\_Level": {

 "type": "string",

 "required": false

 },

 "Education\_Level\_Other": {

 "type": "string",

 "required": false

 },

 "Covid\_Vaccine": {

 "type": "string",

 "required": false

 },

 "Covid\_Vaccine\_Date": {

 "type": "string",

 "required": false

 },

 "Covid\_Vaccine\_Manufacturer": {

 "type": "string",

 "required": false

 },

 "Covid\_Vaccine\_Manufacturer\_Other": {

 "type": "string",

 "required": false

 },

 "Covid\_Vaccination\_Site": {

 "type": "string",

 "required": false

 },

 "Date\_of\_Exam": {

 "type": "string",

 "required": true

 },

 "Rescheduled\_Exam": {

 "type": "string",

 "required": false

 },

 "Originally\_Scheduled\_Exam\_Date": {

 "type": "string",

 "required": false

 },

 "Reschedule\_Reason": {

 "type": "string",

 "required": false

 },

 "Type\_of\_Study": {

 "type": "string",

 "required": true

 },

 "Meet\_ACR\_Guidelines": {

 "type": "string",

 "required": true

 },

 "Referred\_Colonoscopy": {

 "type": "string",

 "required": false

 },

 "Interpreting\_Physician\_NPI": {

 "type": "string",

 "required": true

 },

 "CTDIvol": {

 "type": "string",

 "required": false

 },

 "Supine\_Image\_Acquisition": {

 "type": "string",

 "required": false

 },

 "Prone\_Image\_Acquisition": {

 "type": "string",

 "required": false

 },

 "Decubitus\_Image\_Acquisition": {

 "type": "string",

 "required": false

 },

 "Polyp\_10MM": {

 "type": "string",

 "required": true

 },

 "Optical\_Colonoscopy": {

 "type": "string",

 "required": false

 },

 "Optical\_Colonoscopy\_Details": {

 "type": "array",

 "required": false

 },

 "Optical\_Colonoscopy\_Other": {

 "type": "string",

 "required": false

 },

 "Colonic\_Perforation": {

 "type": "string",

 "required": true

 },

 "Colonic\_Perforation\_Etiology": {

 "type": "string",

 "required": false

 },

 "Colonic\_Perforation\_Etiology\_Other\_Specify": {

 "type": "string",

 "required": false

 },

 "E\_Score": {

 "type": "string",

 "required": false

 },

 "C\_Score": {

 "type": "string",

 "required": false

 },

 }

 }

 }

}

## CTC JSON Mapping Specification

The *CTC\_JSON\_Mapping\_<version>.xlsx* document describes the validation rules and format of the JSON data elements. Most of the values of the data elements are mapped to either numeric or alpha-numeric codes.

Please note that although Patient\_SSN, Old Medicare\_Beneficiary\_ID, New\_Medicare\_Beneficiary\_ID and Other\_ID are optional, you must provide at least one of them to submit the transaction successfully. To have a “completed” status on an exam record, you must submit the data elements marked as “Required” or “Conditionally Required” under the “Required/Optional to Complete the Case” column.

The data elements that are marked as “Optional” are not required for submission, a record will not be rejected if an optional field is missing. However, if you do know them, we expect you to provide them. This expectation of complete data is specified in the participation agreement signed by all participating facilities.

## NRDR Web Service Status Schema

NRDR web service transaction status schema describes the data elements and the validation statuses of a transaction, and the exams associated with it.

Parameters: transaction\_id, partner\_id and app\_id initiated by the partner.

You will use the GET request to query the error encountered during the submission process.

Note: the value of the **Error\_Msg** attribute consists of multiple error messages that occurred while validating a transaction. Each message contains the error code-message pair. Messages are separated by the ‘|’ delimiter.

For example:

C2001:Missing Transaction\_ID|C2011:Missing Transaction\_DateTime

CTC Exam Transaction Status Schema:

{

 "name": "CTC\_Exam\_Transaction\_Status",

 "Properties": {

 "Transaction\_ID": {

 "type": "string",

 "required": true

 },

 "Transaction\_DateTime": {

 "type": "string",

 "required": true

 },

 "Num\_of\_Exam\_Included": {

 "type": "number",

 "required": true

 },

 "Num\_of\_Exam\_In\_Error": {

 "type": "number",

 "required": true

 },

 "PartnerID": {

 "type": "string",

 "required": true

 },

 "AppID": {

 "type": "string",

 "required": true

 },

 "Facility\_ID": {

 "type": "string",

 "required": true

 },

 "Status": {

 "type": "string",

 "required": true

 },

 "Error\_Msg": {

 "type": "string",

 "required": false

 },

 "Exam\_Errors": {

 "type": "array",

 "required": true,

 "properties": {

 "Exam\_Unique\_ID”: {

 “type”: “string”,

 “required”: false

 },

 "Error\_Msg": {

 "type": "string",

 "required": true

 }

 }

 }

 }

}

### Transaction Statuses

The following transaction status is possible:

* **Enqueued** – Transaction has been placed in queue and awaiting to be loaded
* **Received** – Transaction has been received and is pending for validation
* **ValidationFail** – Nothing got loaded. Failed at exam processing
* **ValidationSuccessful** – Validation has complete, pending for loading into database
* **Loading** – Data is loading, transaction is being created
* **Posted** – The entire transaction is loaded successfully
* **PartiallySuccessful** – Some elements are loaded and some are rejected
* **Failed** – Transaction failed to be created due to an error

## NRDR Web Service Error Response Schema

NRDR transaction web service error responseschema describes detailed error information which is returned by all API responses with a status code other than 200:

{

 "name": "CTC\_WebService\_Error",

 "Properties": {

 "error\_code": {

 "type": "string",

 "required": true

 },

 "error\_description": {

 "type": "string",

 "required": true

 }

}

# NRDR Transaction API

## Test Environment

Base URL: [https://nrdr9x.acr.org/NonPQRSapi/CTC/transactions](https://nrdr9x.acr.org/NonPQRSapi/nmd/transactions)

Application ID: 10013

Facility ID: to be provided

Partner ID: to be provided

## Authentication

To be able to call API you must add JWT token received from ACR SSO to the “Authorization” request header using the following format:

Bearer <jwt-token>

Responses with a status code 401 indicate errors related to the authentication. Following error codes are used to provide more detailed error:

* ‘invalid\_token’, token is invalid or expired
* ‘missing\_token’, token is not provided in the request header

## Create or Update Transaction

**POST**

POST request is used to upload a new set or update existing CTC exams data.

To update the existing exam, the same composite key must be provided (including patient identifiers).

When the existing exam record is updated, not-null existing values will not be replaced with null values from newly submitted transaction, if ‘Update\_Method’ field of the record declares that fields must not be updated with null (this is default option). Parameter ‘Update\_Method’ is ignored for patient's information fields and conditionally not applicable fields. Patient's data will not be updated with null.

Please note, submissions take up to 72 hours to process and load to NRDR database.

Acceptable request representations:

* application/json

Possible responses:

* 200, returned when transaction data is uploaded and transaction is created successfully,
* 400, content-type: application/json
	+ error\_code = ‘data\_error’

Transaction data is missing or doesn’t have valid JSON representation

* 403, content-type: application/json
	+ error\_code = ‘no\_permission’

Authenticated user doesn’t have permissions to upload transaction data for a given facility

### Examples POST

Creating transaction:

Sample parameters:

Facility\_ID: "100000"

PartnerID: "10000"

AppID: "10013"

Authorization: “Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJodHRwOi8vd3d3LnczLm9yZy8yMDAwLzA5L3htbGRzaWcjcnNhLXNoYTEiLCJ4NXQiOiIzWndDNC15STBQQmNHeDAyWlNsQjdaa1NRLUUifQ.eyJpc3MiOiJodHRwczovL1NlY3VyZUF1dGgwMVZNLmFjci5vcmciLCJhdWQiOiJodHRwczovL1NlY3VyZUF1dGgwMVZNLmFjci5vcmciLCJuYmYiOjE0MjIyNzY3ODIsImV4cCI6MTQyMjM2MzE4MiwiY2xpZW50X2lkIjoiMWY1ZjM5NTI0ZjIyNGRmMDg0NTIwYTJmYWE5YTkyNzUiLCJzY29wZSI6WyJvcGVuaWQiLCJwcXJzIl0sInN1YiI6IjEwMDAwMF9udWFuY2UiLCJhbXIiOiJwYXNzd29yZCIsImF1dGhfdGltZSI6IjE0MjIyNzY3NTciLCJpZHAiOiJTZWN1cmVBdXRoNSJ9.AFsoPNtIT8N0N6w1y0OZLokdplfRM2Y8OAvquMXpkoI\_6b9ANEhXY72ubuylt6-4vdJ165aVUXPRDTF37UT9cqv21hRTpOfYYM0tV5gksUbvLzKaPFt6EWbB8ctQnHs1pxyDGSbKDM-dR6upj6x0eZ7O46Zwi8o8Zhkeu0bFZPNmLS7y96\_A9uyGBkbt69Ih0aCBNRvtabqkD3vJsWB4EIfiqJJ2RO8XPCGfSoYAnuosgH5Cm6kMNN7WiX4rgFps20MryBLtutKztcNhaj-l65gzxyrJpgmq8r9dBWiFI6nFc-rKkNr6Gdj2TH9EABloC6aO\_CQQFtgrXFLEchnSPw”

**Note**: the authentication/authorization mechanism in the CTC Exam API adopts the ACR SSO security model which requires an authorization token after authenticated successfully. The token in the sample parameters above is an example.

function createTransaction(transactionData, token) {

    $.ajax({

        type: 'POST',

        url: "https://nrdr9x.acr.org/NonPQRSapi/CTC/transactions",

        data: JSON.stringify(transactionData),

        dataType: "json",

        contentType:"application/json; charset=utf-8",

        headers: { "Authorization": "Bearer " + token },

        success: function (data) {

            // handle data load success

        }

    });

}

This function can be used in the following way:

var transactionJsonData =

{

Transaction\_ID: "c-1603-7",

Transaction\_DateTime: "02/19/2019",

Num\_of\_Exam\_Included: 2,

Facility\_ID: "100000",

PartnerID: "10000",

AppID: "10013",

Previous\_Transaction\_ID: null,

CTC\_File\_Version\_Num: "1.3",

Exam: [

 {

 "Update\_Method": 0,

 "Patient\_SSN": "111-11-1111",

 "Other\_ID": "other-005",

 "Description": null,

 "Patient\_First\_Name": "first",

 "Patient\_Middle\_Name": "middle",

 "Patient\_Last\_Name": "last",

 "Medicare\_Beneficiary\_ID": null,

 "New\_Medicare\_Beneficiary\_ID": null,

 "Date\_of\_Birth": "01/01/1998",

 "Patient\_Sex": "M",

 "Race": "1,3,4,5,6,8",

 "Hispanic\_Origin": "9",

 "Health\_Insurance": "1,2,4,6,7",

 "Health\_Insurance\_Other": null,

 "Education\_Level": "99",

 "Education\_Level\_Other": null,

 "Covid\_Vaccine": "1",

 "Covid\_Vaccine\_Date": null,

 "Covid\_Vaccine\_Manufacturer": "88",

 "Covid\_Vaccine\_Manufacturer\_Other": null,

 "Covid\_Vaccination\_Site": "1",

 "Date\_of\_Exam": "03/03/2020",

 "Rescheduled\_Exam": "Y",

 "Originally\_Scheduled\_Exam\_Date": "03/02/2020",

 "Reschedule\_Reason": "1",

 "Type\_of\_Study": "1",

 "Meet\_ACR\_Guidelines": "9",

 "Referred\_Colonoscopy": 1,

 "Interpreting\_Physician\_NPI": "1568771319",

 "CTDIvol": "0.01",

 "Supine\_Image\_Acquisition": "0",

 "Prone\_Image\_Acquisition": "1",

 "Decubitus\_Image\_Acquisition": "2",

 "Polyp\_10MM": "1",

 "Optical\_Colonoscopy": "1",

 "Optical\_Colonoscopy\_Details": "2",

 "Optical\_Colonoscopy\_Other": null,

 "Colonic\_Perforation": "1",

 "Colonic\_Perforation\_Etiology": "3",

 "Colonic\_Perforation\_Etiology\_Other\_Specify": null,

 "E\_Score": "E0",

 "C\_Score": "C1",

 }]

 }

//Get ACR SSO Token

var token = GetAuthorizationToken();

createTransaction(transactionData, token);

## Get Transaction Status

**GET**

GET request is used to get a transaction JSON object for a single transaction.

Possible responses:

* 200,content-type: application/json

Response will contain JSON data according to NRDR web service status schema

* 400, content-type: application/json
	+ error\_code = ‘missing\_param’

Indicates a missing transaction ID parameter

* 404, content-type: application/json
	+ error\_code = ‘invalid\_param’

Indicates that transaction with a given ID doesn’t exist

### Examples GET

Getting transaction status:

For test use the following values:

https://nrdr9x.acr.org/NonPQRSapi/ctc/transactions?id=<transaction id>

&facilityid=<facility id>&partnerid=<partner id>&appid=<app id>

Sample parameters:

 id: “26”     (transaction id)

       FacilityID: "100000"

       PartnerID: "10000"

       AppID: "10013"

**Note**: the authentication/authorization mechanism in the CTC Exam API adopts the ACR SSO security model which requires an authorization token after authenticated successfully.

function getTransaction(transactionId, token, partnerId, appId, facilityId) {

    $.ajax({

        type: 'GET',

        url: "https://nrdr9x.acr.org/NonPQRSapi/ctc/transactions",

        data: { "id": transactionId, "appid": appId, "partnerid":

partnerId,"facilityid": facilityId },

        headers: { "Authorization": "Bearer " + token },

        success: function (data) {

            // handle JSON with transaction data

        }

    });

}

JSON response example:
{

 "Transaction\_ID": "26",

 "Transaction\_DateTime": "2023-02-02T00:00:00",

 "Num\_of\_Exam\_Included": 1,

 "Num\_of\_Exam\_In\_Error": 0,

 "PartnerID": 10000,

 "AppID": 10013,

 "Facility\_ID": "100000",

 "Error\_Msg": "",

 "Exam\_Errors": [

 {

 "Exam\_Unique\_ID": "uniq0001",

 "Error\_Msg": "C3045:Warning. Physician NPI 0000000000 does not exist for this facility ID/registry"

 }

 ],

 "Status": "Posted"

}

# Validation & Error Messages

The Validator will validate the following:

1. JSON syntax
2. Required fields
3. Response value of the data elements based on the business rules stated in the *CTC JSON Mapping\_<version>.xlsx*.

The table below lists the possible messages generated by the validator during the validation process for a transaction:

| **Error Code** | **Error Status** | **Error** | **Error Message** |
| --- | --- | --- | --- |
| C0000 |  | TransactionReceived | Transaction is loaded successfully |
| C0001 |  | TransactionPending | Transaction has been received and is pending for validation |
| C0002 |  | TransactionLoading | Validation has been completed, pending for loading to database |
| C0003 |  | TransactionLoadedPartially | Transaction was partially loaded. Some elements did not pass validation and were rejected. |
| C0004 |  | TransactionRejected | The entire transaction was rejected due to failure in validation |
| C0005 |  | TransactionReplaced | This transaction has been replaced with another transaction |
| C1003 |  | DataDoesNotMatchSchema | Unable to import data submitted. Data does not match schema |
| C1004 |  | DataIsEmpty | Unable to import data submitted. Data is empty or null |
| C1005 |  | OtherDataError | Error importing data <exception message> |
| C1010 |  | NotAuthorized | User account is not authorized to submit data to CTC |
| C1012 |  | PartnerNotAuthorizedForFacilityApplication | Partner <Partner ID> is not authorized to submit data for facility <facility ID> and/or application <application> |
| C2001 |  | TransactionIdMissing | Missing Transaction\_ID |
| C2002 |  | TransactionIdInvalid | Invalid Transaction\_ID. Maximum length is 50 characters |
| C2011 |  | TransactionDateTimeMissing | Missing Transaction\_DateTime |
| C2012 |  | TransactionDateTimeInvalidFormat | Transaction\_DateTime is not a valid date time format |
| C2013 |  | TransactionDateTimeFuture | Transaction\_DateTime is a future date |
| C2014 |  | TransactionIdMustBeUniqie | Transaction\_ID must be unique. <transaction\_id> has been submitted in a previous transaction |
| C2021 |  | NumOfExamIncludedMissing | Missing Num\_of\_Exam\_Included |
| C2022 |  | NumOfExamIncludedInvalidFormat | Num\_of\_Exam\_Included is not an integer |
| C2031 |  | PartnerIdMissing | Missing PartnerID |
| C2032 |  | PartnerIdInvalid | Invalid PartnerID |
| C2041 |  | AppIdMissing | Missing AppID |
| C2042  |  | AppIdInvalid | Invalid AppID |
| C2051 |  | FacilityIdMissing | Missing Facility\_ID |
| C2052 |  | FacilityIdInvalid | Invalid Facility\_ID |
| C2053 |  | FacilityNotRegistered | Facility has not registered for CTC. Submission aborted |
| C2054 |  | FacilityNotAccepted | Facility has not been accepted to CTC. Submission aborted |
| С2057 |  | FacilityNotAccessible | Invalid FacilityID. User has no access to the registry of the facility. |
| C2062 |  | PreviousTransactionIdInvalid | Invalid Prev\_Transaction\_ID. No transactions with Transaction ID <prev\_transaction\_id> was received till now |
| C2071 |  | ExamsMissing | Missing exam object information |
| C2072 |  | ExamsIncludedNumberIncorrect | Data in tag Num\_of\_Exams\_Included <num\_of\_exams\_included> does not match with exam received <total # exam received> |
| C2081 |  | ExamsPartiallyRejected | Some of the exams did not pass validation and were rejected |
| C2091 |  | HasUnknownFieldsInvalid | Transaction has unknown element(s): <unknown\_elements\_list> |
| C2092 |  | HasForbiddenSymbolInFieldsInvalid | Forbidden symbol ‘|’ in field(s): <fields\_names> |
| C3001 |  | FieldMissing | Invalid. Missing {0} |
| C3002 |  | FieldNotApplicableInvalid | Invalid. {0} is not applicable |
| C3003 |  | FieldsCountInvalid  | Invalid record. {0} entries expected. {1} read. |
| C3007 |  | FieldFormatInvalid | Invalid {0} format |
| C3008 | Obsolete | RegistrationFieldRequiredForSubmit | Warning. {0} is required for completing an exam record (Registration stage)" |
| C3009 |  | NumberOutOfRangeInvalid | Invalid {0}. Possible values between {2} and {3} |
| C3010 |  | UniqueWithinArrayInvalid | Invalid {0}. Values should be unique within array |
| C3011 |  | MaximumArrayLengthInvalid | Invalid {0}. Maximum array length is {1} elements |
| C3012 |  | ExamFieldRequiredForSubmit | Warning. {0} is required for completing an exam record |
| C3015 | Obsolete | PolypFieldRequiredForSubmit | Warning. {0} is required for completing an exam record (Polyp stage) |
| C3031 |  | VersionNumberInvalid | Invalid version number. Version number must be {0}. Field read: {1} |
| C3032 |  | VersionNumberNotSupported | Version number is not supported |
| C3042 |  | RadiologistNPIInvalid | Invalid Interpreting\_Physician\_NPI |
| C3045 |  | RadiologistNotExists | Warning. Physician NPI does not exist for this facility ID/registry |
| C3062 |  | DateInvalidFormat | Invalid {0} format. Valid format is mm/dd/yyyy or m/d/yyyy |
| C3110 |  | CharacterLengthInvalid | Invalid {0}. Maximum character length is {1} character(s) |
| C3111 |  | NumericFieldInvalid | Invalid {0}. Field must contain only the characters 0-9 |
| C3112 |  | DecimalInvalid | Invalid {0}. Field must contain only the characters 0-9. Field may contain a decimal point |
| C3113 |  | NumDigitsAfterDecimalPointInvalid | Invalid {0}. Field must be number with up to {1} digits after the decimal point |
| C3116 |  | SelectionFieldInvalid | Invalid {0}. Values {1} expected |
| C3117 |  | MonthFormatInvalid | Invalid {0}. Month must be in a 1 or 2 digit format |
| C3118 |  | MonthValueInvalid | Invalid {0}. Month must be between 1 and 12 |
| C3119 |  | MonthTypeInvalid  | Invalid {0}. Month must be a numeric value |
| C3120 |  | DayFormatInvalid  | Invalid {0}. Day must be in a 1 or 2 digit format |
| C3121 |  | DayValueInvalid | Invalid {0}. Day must be between 1 and 31 |
| C3122 |  | DayTypeInvalid  | Invalid {0}. Day must be a numeric value |
| C3123 |  | YearFormatInvalid | Invalid {0}. Year must be in a 4 digit yyyy format |
| C3124 |  | YearValueInvalid | Invalid {0}. Year must be between {corresponding date of validation} and {1} |
| C3125 |  | YearTypeInvalid  | Invalid {0}. Year must be a numeric value |
| C3126 |  | DateInFutureInvalid | Invalid {0}. Date must be before or on present date |
| C3128 |  | DatesInLeapYearInvalid | Invalid {0}. Dates in a leap year in the month of February must have day values between 1 and 29 |
| C3129 |  | DatesInFebruaryInvalid  | Invalid {0}. Dates in the month of February must have day values between 1 and 28 |
| C3130 |  | MonthDatesInvalid | Invalid {0}. Dates in the months of April, June, September, and November must have day values between 1 and 30 |
| C3131 |  | ManyPatientsFoundInvalid | Invalid. More than one patient found with the same set of provided identifiers (SSN/Old MBID/New MBID/Other ID). Existing NRDR patient ID – conflicting patient identifier: <NRDR Patient ID1> - <ID1>, <ID2>; <NRDR Patient ID2> - <ID1>, <ID2>…<NRDR Patient IDn>-<ID1>, <ID2>…<IDn> |
| C3132 |  | PatientIsDuplicateInvalid | Invalid. Cannot create/update patient. Patient identifier already in use for a different existing patient. Existing NRDR patient ID – conflicting patient identifier: <NRDR Patient ID1> - <ID1>, <ID2>; <NRDR Patient ID2> - <ID1>, <ID2>…<NRDR Patient IDn>-<ID1>, <ID2>…<IDn> |
| C3142 |  | PatientIdentificationRequiredInvalid | Invalid. At least one patient identifier must be provided: SSN, Other ID, Old Medicare Beneficiary ID or New Medicare Beneficiary ID |
| С3148 |  | UpdateSubmittedFormInvalid | Invalid. Case Registration/Exam form is in 'Submitted' status but not all required fields to submit this form are set |
| C3153 |  | SSNFormatInvalid | Invalid Patient\_SSN format. Valid format is nnn-nn-nnnn |
| C3154 |  | SSNOfOneDigitInvalid | Invalid Patient\_SSN. SSN cannot be numeric sequence of one digit |
| C3165 |  | NewMedicareIdFormatInvalid | Invalid New\_Medicare\_Beneficiary\_ID format. Valid format is xxxx-xxx-xxxx or xxxxxxxxxxx. Must be alphanumeric in the predefined format. |
| С3166 |  | DifferentNewMBIDInOldAndNewMBIDInvalid | Invalid. Different New Medicare Beneficiary ID values provided in Old\_Medicare\_Beneficiary\_ID and New\_Medicare\_Beneficiary\_ID fields |
| C3201 |  | OtherRaceCannotBeSelectedInvalid | Invalid Patient\_Race. If ‘Not Reported’ or ‘Unknown’ is selected, then any other options cannot be selected |
| C3210 |  | HealthInsuranceOtherApplicableInvalid | Invalid. Health Insurance Other is only applicable, if Health Insurance is ‘Other, specify’. Otherwise, should be blank |
| C3211 |  | HealthInsuranceOtherRequiredWarning | Warning. Health Insurance Other is required, if Health Insurance is ‘Other, specify’ |
| C3212 |  | UnknownHealthInsuranceCannotBeSelectedInvalid | Invalid. Health Insurance invalid options selected. If 'Unknown' option selected, no other options can be selected |
| C3220 |  | EducationLevelOtherSpecApplicableInvalid | Invalid. Education Level Other is only applicable if Education Level is 'Other, specify'. Otherwise should be blank |
| C3221 |  | EducationLevelOtherSpecRequiredWarning | Warning. Education Level Other is required, if Education Level is 'Other, specify' |
| C3310 |  | CovidVaccineDateApplicableInvalid | Invalid. Covid Vaccine Date is applicable when Covid Vaccine is ‘Yes’. Otherwise should be blank |
| C3312 |  | CovidVaccineManufacturerApplicableInvalid | Invalid. Covid Vaccine Manufacturer is only applicable when Covid Vaccine is ‘Yes’. Otherwise should be blank |
| C3313 |  | CovidVaccineManufacturerRequiredWarning | Warning. Covid Vaccine Manufacturer is required, if Covid Vaccine is ‘Yes’ |
| C3314 |  | CovidVaccineManufacturerOtherApplicableInvalid | Invalid. Covid Vaccine Manufacturer Other is only applicable when Covid Vaccine Manufacturer is ‘Other’. Otherwise should be blank |
| C3315 |  | CovidVaccineManufacturerOtherRequiredWarning | Warning. Covid Vaccine Manufacturer Other is required, if Covid Vaccine Manufacturer is ‘Other’ |
| C3316 |  | CovidVaccinationSiteApplicableInvalid | Invalid. Covid Vaccination Site is only applicable when Covid Vaccine is ‘Yes. Otherwise should be blank |
| C3317 |  | CovidVaccinationSiteRequiredWarning | Warning. Covid Vaccination Site is required, if Covid Vaccine is ‘Yes’ |
| C3381 |  | PatientAgeInvalid | Invalid. Patient date of birth must be less than current date |
| C3391 |  | ExamDateMustBeLaterThenBirthInvalid | Invalid. Date of exam must be later than birth date |
| C3395 |  | OriginallyScheduledExamDateBeforeExamDateWarning | Warning. Originally Scheduled Exam Date must be before current Date of Exam |
| C3411 | Obsolete | ScannerDoesNotExistWarning | Warning. Scanner with this name does not exist |
| C3421 |  | FieldDependingOnMeetACRGuidelinesRequiredWarning | Warning. {0} is required for submit, if 'Did technique meet ACR guidelines?' is 'Unknown' |
| C3425 | Obsolete | FieldDependingOnScannerNameRequiredWarning | Warning. {0} is required for submit, if 'Did technique meet ACR guidelines?' is 'Unknown', and 'Scanner Name' is null or scanner does not exist |
| C3431 | Obsolete | ScannerManufacturerSpecRequiredWarning | Warning. Scanner\_Manufacturer\_Spec is required for submit, if Scanner\_Manufacturer is 'Other' |
| C3433 | Obsolete | ScannerManufacturerSpecNotApplicableInvalid | Invalid. Scanner\_Manufacturer\_Spec only applicable if Scanner\_Manufacturer is 'Other' |
| C3434 |  | OpticalColonoscopyNotApplicableInvalid | Invalid. Optical\_Colonoscopy only applicable, if Polyp\_10MM is ‘Yes’ |
| C3435 |  | OpticalColonoscopyDetailsNotApplicableInvalid | Invalid. Optical\_Colonoscopy\_Details only applicable, if Optical\_Colonoscopy is "Confirmed at optical colonoscopy” |
| C3436 |  | OpticalColonoscopyOtherRequiredWarning | Warning. Optical\_Colonoscopy\_Other is required for submit, if Optical\_Colonoscopy\_Details is “Other”  |
| C3437 |  | OpticalColonoscopyOtherNotApplicableInvalid | Invalid. Optical\_Colonoscopy\_Other only applicable, if Optical\_Colonoscopy\_Details is “Other” |
| C3441 | Obsolete | SegmentNonDiagnosticRequiredWarning | Warning. Required to select one or more reasons: 'Excess\_Fluid', 'Fecal\_Material', 'Segmental\_Collapse' or 'Other' |
| C3443 | Obsolete | SegmentNonDiagnosticNotApplicableInvalid | Invalid. {0} only applicable if One\_Or\_More\_Segment\_Non\_Diagnostic is 'Yes' |
| C3451 | Obsolete | SegmentNonDiagnosticOtherSpecRequiredWarning | Warning. Other\_Spec is required for submit, if Other reason is 'Yes' |
| C3453 | Obsolete | SegmentNonDiagnosticOtherSpecNotApplicableInvalid | Invalid. Other\_Spec only applicable if Other reason is 'Yes' |
| C3461 |  | FieldDependingOnColonicPerforationRequiredWarning | Warning. {0} is required for submit, if Colonic\_Perforation is 'Yes' |
| C3463 |  | FieldDependingOnColonicPerforationNotApplicableInvalid | Invalid. {0} only applicable, if Colonic\_Perforation is 'Yes' |
| C3471 |  | EtiologyOtherSpecRequiredWarning | Warning. Etiology\_Other\_Spec is required for submit, if Etiology\_Of\_Perforation is 'Other' |
| C3473 |  | EtiologyOtherSpecNotApplicableInvalid | Invalid. Etiology\_Other\_Spec only applicable if Etiology\_Of\_Perforation is 'Other' |
| C3481 | Obsolete | FieldDependingOnPolypSizeAndFollowUpRequiredWarning | Warning. {0} is required for submit, if Polyp\_Size\_{1} is entered and Patient\_Lost\_To\_Follow\_Up is 'No' |
| C3483 | Obsolete | FieldDependingOnPolypSizeAndFollowUpNotApplicableInvalid | Invalid. {0} only applicable, if Polyp\_Size\_{1} is entered and Patient\_Lost\_To\_Follow\_Up is 'No' |
| С3511 | Obsolete | FieldDependingOnPolypSizeRequiredWarning | Warning. {0} is required for submit, if Polyp\_Size\_{1} is entered |
| С3513 | Obsolete | FieldDependingOnPolypSizeNotApplicableInvalid | Invalid. {0} only applicable, if Polyp\_Size\_{1} is entered |
| С3521 | Obsolete | WasPolypConfirmedRequiredWarning | Warning. {0} is required for submit, if Did\_Colonoscopy\_Reach\_Level\_{1} is 'Yes' or 'Not applicable' |
| С3523 | Obsolete | WasPolypConfirmedNotApplicableInvalid | Invalid. {0} only applicable, if Did\_Colonoscopy\_Reach\_Level\_{1} is 'Yes' or 'Not applicable' |