



ESI Rx History™ Real-Time Services Implementation Guide

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SECTION 1

OVERVIEW

1.1 ABOUT ESI HEALTHCARE BUSINESS SOLUTIONS

ESI Healthcare Business Solutions (ESI) is a national data aggregator that supports the largest data repository of prescription claims data to enable the efficient and secure exchange of prescription claims data to hospitals, physicians, health information exchanges, post-acute market and health technology firms to improve efficiency, increase adherence and reduce the cost of healthcare for all.

1.2 ABOUT THIS GUIDE

The ESI Rx History™ Real-Time Service Implementation Guide was created to assist customers in developing software used to deliver historical claims data directly populated from pharmacy benefit managers (PBMs), and fill data from pharmacies for customer-defined populations.

1.3 EXAMPLES DISCLAIMER

Examples provided throughout this guide are not intended to be all-inclusive. This pertains to example workflows, element (field) specific examples, or message examples. Customers should not restrict coding to the examples used herein. When developing, this guide should be used along with the accompanying schema file (see 1.4), additional documentation referenced, and applicable customary XML coding standards.

1.4 ESI RX HISTORY™ REAL-TIME SERVICE

ESI Rx History™ Real-Time is a 12-month prescription history service designed to allow authorized End Users to electronically access, in real-time via REST based API, a patient's 12-month medication history, including but not limited to, information from Pharmacy Benefit Managers (PBMs) and retail pharmacies for the purpose of medication reconciliation. ESI Rx History™ Real-Time is only permitted to be used by physicians, clinics and hospitals and their Business Associates (BA) as defined under HIPAA, located in the United States (US) or a US territory that has entered into a written agreement with ESI Healthcare Business Solutions LLC.

1.5 AGGREGATOR CUSTOMER DELIVERABLES

Provide the following required data fields to match patient identities:

- Patient Consent obtained (Yes or No)
- Patient First Name
- Patient Last Name
- Patient Gender
- Patient Date of Birth
- Patient Zip Code
- Provider/End User/Organization NPI
- Provider Last Name/End User/Organization Name



- Requestor Identification (unique email address/user name of Authorized User)

1.6 AGGREGATOR DELIVERABLES

Provide access to medication history information and other data, from Aggregator data sources. Medication history information will include:

- Medication name, strength and form
- Therapeutic Class
- Dosage instructions (if returned by the data sources)
- Medication quantity
- Day's supply
- Prescription fill date
- Prescriber name, address, and phone number (if returned by the data sources)
- Pharmacy name, address, and phone number (if returned by the data sources).

1.7 VERSIONING

Version	Release Date
1.0	June 24, 2019

1.8 USER ACCOUNT ACCESS

- Demo: To access demonstration/staging data and not incur a charge for a successful transaction, a demo account needs to be utilized. Patient PHI should not be sent to the staging environment. Test patient data only.
- Production: To access live/production data a production account needs to be utilized. All requests made in Production are sent to Aggregator data sources and all successful transactions will have an associated charge.

1.9 EXAMPLES DISCLAIMER

Standard:

- Deduplication: using proprietary crosswalk external databases to deduplicate data based on internal business rules to provide the most complete data set.
- Grouping: using generic sequence ID to group together medications based on formulation regardless of manufacturer.
- Medication Status: active, recent, inactive, refill (see page 30: [Medication Fill Status](#))
- Therapeutic Classes: Proprietary, ATC (see page 19: [Therapeutic Info Model](#))
- Fill vs. Claim: 3 options (see page 20: [History Source Model](#))



Optional (account driven requests can be applied): Please contact ESI to discuss options/pricing.

- Taxonomy Codes: Describes the Provider/Organization's type classification, and the area of specialization
- Caching System: Allows users to make additional identical patient requests for an agreed amount of time without accessing new data. The data returned will be the same as the data returned during the initial request. Additional identical patient requests will not incur a transaction fee during the cached timeframe.

1.10 COMPLIANCE

Aggregator Customer must establish and maintain security safeguards against the destruction, loss, or alteration of ESI Rx History™ Real-Time Service data. Aggregator requires a Requestor identification be submitted specific for each End User making a request. The Requestor Identification is unique and specific for each End User.

SECTION 2 AUTHORIZATION

Access to the new ESI RxHistory API is made using OAuth tokens. These access tokens are generated from the ESI Single-Sign-On System and will require either user level or system level credentials to obtain. These tokens are valid for a short period of time and should be reused for requests until the token expires but should not be persisted to disk beyond the life of a session.

Details tied to a customer's account will determine the underlying capabilities and levels of access that are allowed. ESI can set up credentials to have varying levels of access depending on the customer's needs.

2.1 CONNECTIVITY

Authority	https://auth.esihealthcaresolutions.com/
Metadata URL	https://auth.esihealthcaresolutions.com/.well-known/openid-configuration
Token Endpoint	https://auth.esihealthcaresolutions.com/connect/token

2.2 OAUTH SCOPES

esi.rhx.acute	Required as part of the token to access medication history for acute.
---------------	---

2.3 CREDENTIALS/FLOWS

ESI Currently has support for the following methods to obtain tokens:

- Client Credentials (System Level)



ESI will provision an account for testing purposes until a customer is ready to go live. Once a customer is ready to go live, production credentials will be created.

2.4 CLIENT CREDENTIALS

Client Credentials requires a combination of both a “Client ID” and “Secret”. These values will be provided by ESI for use against the system. These values are sensitive and should not be stored un-encrypted and in a place that can be viewed by anyone that should not have access to run medication history requests. Because these are system level credentials, additional information will be required on each request for audit purposes.

2.5 ACCESS TOKENS

The JWT (JSON Web Token) access token received from the Token Endpoint is can be viewed using the tool <http://jwt.io/> and will allow you to verify the token details. There are several values that should exist for the token to be considered valid for use with the ESI RxHistory API. These vary between a user level token and a system level token.

2.6 SYSTEM ACCESS TOKEN

System access tokens contain parameters identifying the customer, but not an individual user making requests.

- Demo: To access demonstration/staging data and not incur a charge for a successful transaction, a demo account needs to be utilized.
- Production: To access live/production data a Production account needs to be utilized. All requests made in Production are sent to Aggregator data sources and all successful transactions will have an associated charge.

KEY	VALUE	NOTES
ALG	RS256	RSA Signature with SHA-256
KID	<Varies>	Internal Use
TYP	JWT	JSON Web Token
NBF	<Varies>	Claim identifies the time before which the token is not valid for use
EXP	<Varies>	Claim identifies the time of which the token expires and is not valid for use
ISS	https://auth.esihealthcaresolutions.com	Identifies the SSO authority
AUD	medicationAnalytics	medicationAnalytics is required to identify the token relates to ESI RxHistory Services
CLIENT_ID	<Varies>	Client Username used for system level access
CLIENT_ESI.CLIENTID	<Varies>	Internal



CLIENT_SVC.NAME	esi.rhx	Access grant for ESI RxHistory Service. Absence of this value requires contacting ESI support.
CLIENT_SVC.FEATURES	esi.rhx.acute.live esi.rhx.acute.demo esi.rhx.acute.cache esi.rhx.acute.taxonomy	Access to either live or demo data. Will not have both in the same token. Absence of this value requires contacting ESI support. Additional values indicate customer enabled features.
JTI	<Varies>	Claim provides a unique identifier for the token
SCOPE	esi.rhx.acute	This scope identifies that the user is requesting access to services around Acute Medication History

SECTION 3 API ENDPOINTS

Details of the requests and responses can be found in the Objects section. Depending on whether a user level token or system level token is used, additional identifier information may be required for an endpoint call. In the event of a failure, a JSON friendly message will be returned with brief details along about the error with the HTTP status code.

3.1 REQUEST HISTORY

The RequestHistory endpoint is the primary endpoint used for requesting a new medication history transaction against the ESI data sources.

URL	https://api.esihealthcaresolutions.com/rxhistory/api/acute/requesthistory
Method	POST
Media Types	application/json
Authentication	OAuth2 Bearer Token
Request Object	Medication History Request
Response Object	Medication History Response

SECTION 4 STYLE CONVENTIONS

4.1 MODEL FIELDS

The following fields may be described in each of the models. Fields are described in the diagrams as the segment after a *colon* (:). If there are more specific requirements or constraints for the models, the documentation on the model will include them.



Field	Meaning
string	Unicode text contained between double quotes. Empty strings may be represented as either double quotes with nothing between them or as a null value.
integer16	16-bit whole number between -32,768 and 32,767.
integer	32-bit whole number between -2,147,483,648 and 2,147,483,647.
integer64	64-bit whole number between -9,223,372,036,854,775,808 and 9,223,372,036,854,775,807.
byte	8-bit whole number between 0 and 255.
decimal	128-bit floating-point number between $\pm 1.0 \times 10^{-28}$ to $\pm 7.9228 \times 10^{28}$ that contains a fraction of a number.
date	ISO 8601 formatted date, time, and offset. Specific format for the field will be included in parenthesis.
null	Special keyword used in a field to indicate that a value is not available or defined.

For any field described as something other than the legend above, it will indicate that another *model* is used in the field.

In addition, each field will include brackets any time a field is optional or contains more than one occurrence for the field. These will be described in the following format: [<minimum>..<>maximum>]

4.2 COMMON EXAMPLES:

- [0..1] – There are exactly 0 or 1 occurrences for the field.
- [1..*] – There are 1 or more occurrences for the field.
- [0..*] – There are 0 or more occurrences for the field.

4.3 SAMPLES

Samples provided include formatted JSON that represents the model being described. Samples will be enclosed inside a visual box and color coded for easy reading.

SECTION 5 OBJECT DEFINITIONS

Object definitions are broken down into sections for the requests and sections for the responses.

5.1 REQUESTS

5.1.1 MEDICATION HISTORY REQUEST

The MedicationHistoryRequest object is the default object for new requests of medication history. It is broken down into several sections consisting of details of the patient, requesting physician, and transaction details.

SAMPLE

```
{
  "patient": {
```



```
{
  "firstName": "John",
  "lastName": "Doe",
  "postalCode": "75075",
  "birthDate": "1975-12-12",
  "gender": "Male"
},
{
  "requestor": {
    "providerName": "Smith",
    "providerNpi": "1234567890"
  },
  "consent": "PatientAnyProvider",
  "customerTransactionReference": "AD-13415",
  "requestorIdentification": "user@company.com",
  "returnFormat": "Detailed",
  "interactionCheck": "Recent"
}
```

TRANSACTION DETAILS

Field	Required	Example	Description
consent	Yes	PatientAnyProvider	See Medication History Consent
customerTransactionReference	No	AD-13415	Customer specific reference field. Results returned will contain this value for customer systems to link record to.
requestorIdentification	System	user@company.com	Required for system access tokens to identify the individual making the request. Can be either a system username, email, or other unique ID that ties the request to a specific user.
returnFormat	Yes	Detailed	Only Detailed is supported at this time.
interactionCheck	No	Recent	See Include Interactions Flag

PATIENT DETAILS

Field	Required	Example	Description
firstName	Yes	John	First name of the patient
lastName	Yes	Doe	Last name of the patient
postalCode	Yes	75075	Postal code associated with the patient. Typically, one associated with insurance.
birthdate	Yes	1975-12-12	Birthdate in YYYY-MM-DD format.
gender	Yes	Male	See Patient Gender



REQUESTOR DETAILS

Field	Required	Example	Description
providerName	Yes	Smith	Prescriber last name for individual NPI or organizational name for organization NPI
providerNpi	Yes	1234567890	NPI of the prescriber requesting patient history. Must be a valid NPI.

5.2 RESPONSES

5.2.1 MEDICATION HISTORY RESPONSE

The MedicationHistoryResponse contains the results of the transaction along with the formatted result of the patients record.

SAMPLE

```
{
  "transactionId": 217,
  "requestedDate": "2019-03-28T15:20:17.7098923-05:00",
  "status": "Completed",
  "cacheStatus": "NotCached",
  "isBillable": true,
  "requestor": {
    "providerName": "smith",
    "providerNpi": "1234567890"
  },
  "requestorIdentification": "user@company.com",
  "consent": "PatientAnyProvider",
  "customerTransactionReference": "AD-13415",
  "returnFormat": "Detailed",
  "detailedResult": {
    <See Detailed Result>
  }
}
```

RESPONSE DETAILS

Field	Required	Example	Description
transactionId	Yes	217	Identifier used to track this specific request in ESI's platform
requestedDate	Yes	2019-03-28T15:20:17.7098923-05:00	Date the request was made.
status	Yes	Completed	See Transaction Status
cacheStatus	Yes	NotCached	See Cache Status
isBillable	Yes	true	Indicates whether the transaction is billable at the end of the month.



requestorIdentification	No	user@company.com	Unique value that identifies the individual that made the request.
consent	Yes	PatientAnyProvider	See Medication History Consent
customerTransactionReference	No	AD-13415	Customer specific reference field.
returnFormat	Yes	Detailed	Only Detailed is supported at this time.

REQUESTOR DETAILS

Field	Required	Example	Description
providerName	Yes	Smith	Prescriber last name for individual NPI or organizational name for organization NPI
providerNpi	Yes	1234567890	NPI of the prescriber requesting patient history.

5.3 ERROR MESSAGES

The ApiError represents any post to the API that resulted in an abnormal state. This includes client HTTP codes like 400, 401, 403, 404, and server codes like 500. The return format will be JSON in addition to HTTP Status codes to allow systems to process details of the error in a friendly manner. All errors will include the General Errors fields and more specific errors will include information about each specific error type.

GENERAL ERRORS

Field	Required	Description
Status	Yes	Indicates the specific HTTP Code the message represents.
StatusDescription	Yes	Indicates a brief description of the error.

BAD REQUESTS

Field	Required	Description
Status	Yes	Indicates the specific HTTP Code the message represents.
StatusDescription	Yes	Indicates a brief description of the error.
Details	No	Indicates the details about the request that caused the error
OriginalUri	No	Indicates the endpoint that caused the error.

DETAIL ERRORS

Field	Required	Description
Status	Yes	Indicates the specific HTTP Code the message represents.
StatusDescription	Yes	Indicates a brief description of the error.
Details	No	Additional details about the specific error
ErrorCode	Yes	Indicates the application specific error code.



FORBIDDEN/UNAUTHORIZED ERRORS

Field	Required	Description
Status	Yes	Indicates the specific HTTP Code the message represents.
StatusDescription	Yes	Indicates a brief description of the error.
OriginalUri	No	When included, indicates the endpoint that caused the error.

ENDPOINT NOT FOUND ERRORS

Field	Required	Description
Status	Yes	Indicates the specific HTTP Code the message represents.
StatusDescription	Yes	Indicates a brief description of the error.
OriginalUri	Yes	Indicates the endpoint that caused the error.

5.4 RESULTS

Currently ESI only provides results using a single model for all the details. Future versions may support additional options. Status on a specific request and all associated medications, prescribers, and pharmacies for a patient will be included in the results section of a transaction.

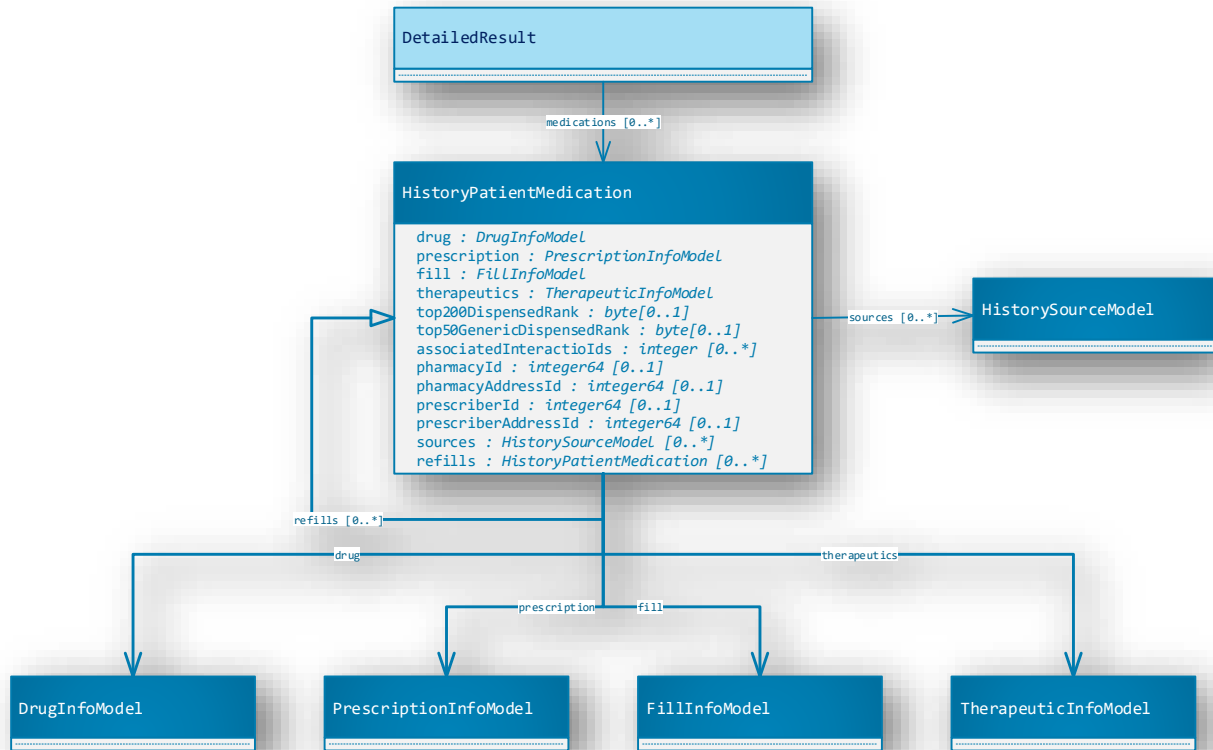
5.4.1 DETAILED RESULT

The detailed result contains all the patient details pulled from the data sources. It will include whether the patient was found and all the medication related details. The detailed result contains several sections of data.

GENERAL FIELDS

Field	Required	Description
patientStatus	No	Indicates the status of the patient for a result. See Patient Status
medications	No	See History Patient Medication . Contains a list of all medication fill records for the patient that were found
interactions	No	See Interaction Detail . When this element contains records, there are records in the medications that came back with interactions based on the interactionCheck setting provided in the request.
pharmacies	No	See History Patient Covered Entity . Contains all the pharmacy details for medications that were found for a patient.
prescribers	No	See History Patient Covered Entity . Contains all the prescriber details for medications that were found for a patient.

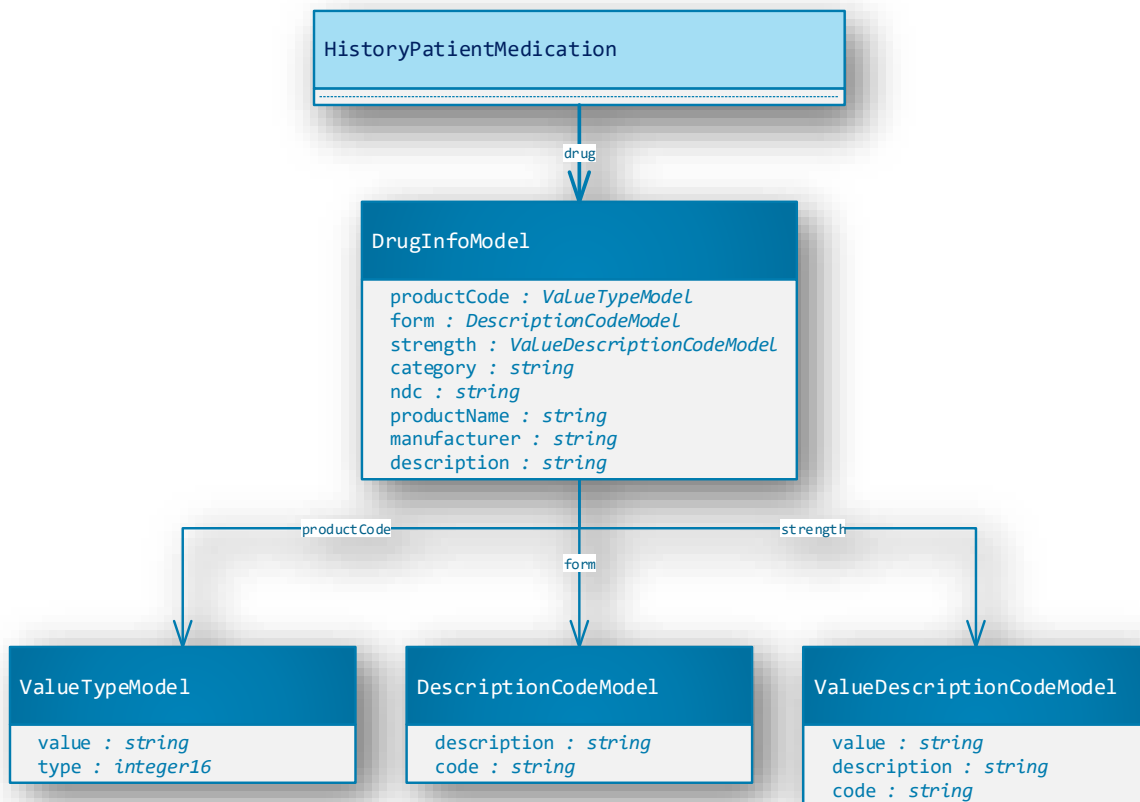
5.4.2 HISTORY PATIENT MEDICATION



Field	Required	Description
drug	Yes	See Drug Info Model
prescription	Yes	See Prescription Info Model
fill	Yes	See Fill Info Model
therapeutics	Yes	See Therapeutic Info Model
top200DispensedRank	No	When included and not NULL, indicates the rank among the top 200 most dispensed medications.
top50GenericDispensedRank	No	When included and not NULL, indicates the rank among the top 50 most dispensed generic medications.
associatedInteractionIds	No	When included, contains the list of associated interactions for this medication. See Interaction Detail
pharmacyId	Yes	Indicates the pharmacy for this medication. Value of 0 indicate the record does not have this information. See History Patient Covered Entity
pharmacyAddressId	Yes	Indicates the specific address associated with the pharmacy for this medication. Value of 0 indicate the record does not have this information. See History Patient Covered Entity
prescriberId	Yes	Indicates the prescriber for this medication. Value of 0 indicate the record does not have this information. See History Patient Covered Entity

prescriberAddressId	Yes	Indicates the specific address associated with the prescriber for this medication. Value of 0 indicate the record does not have this information. See History Patient Covered Entity
sources	Yes	Contains a list of where the data originated from. Currently contains a list of objects with a property of Type and a value of either Fill or Claim
refills	No	When available, contains a list of History Patient Medication objects for each refill made on the medication

5.4.3 DRUG INFO MODEL



- Many of the fields in this section are considered optional and will only be completed when an NDC is included.

SAMPLE

```

"drug": {
  "productCode": {
    "value": "10019055303",
    "type": 2
  },
  "strength": {
    "value": "1 mg/3 day",
  
```



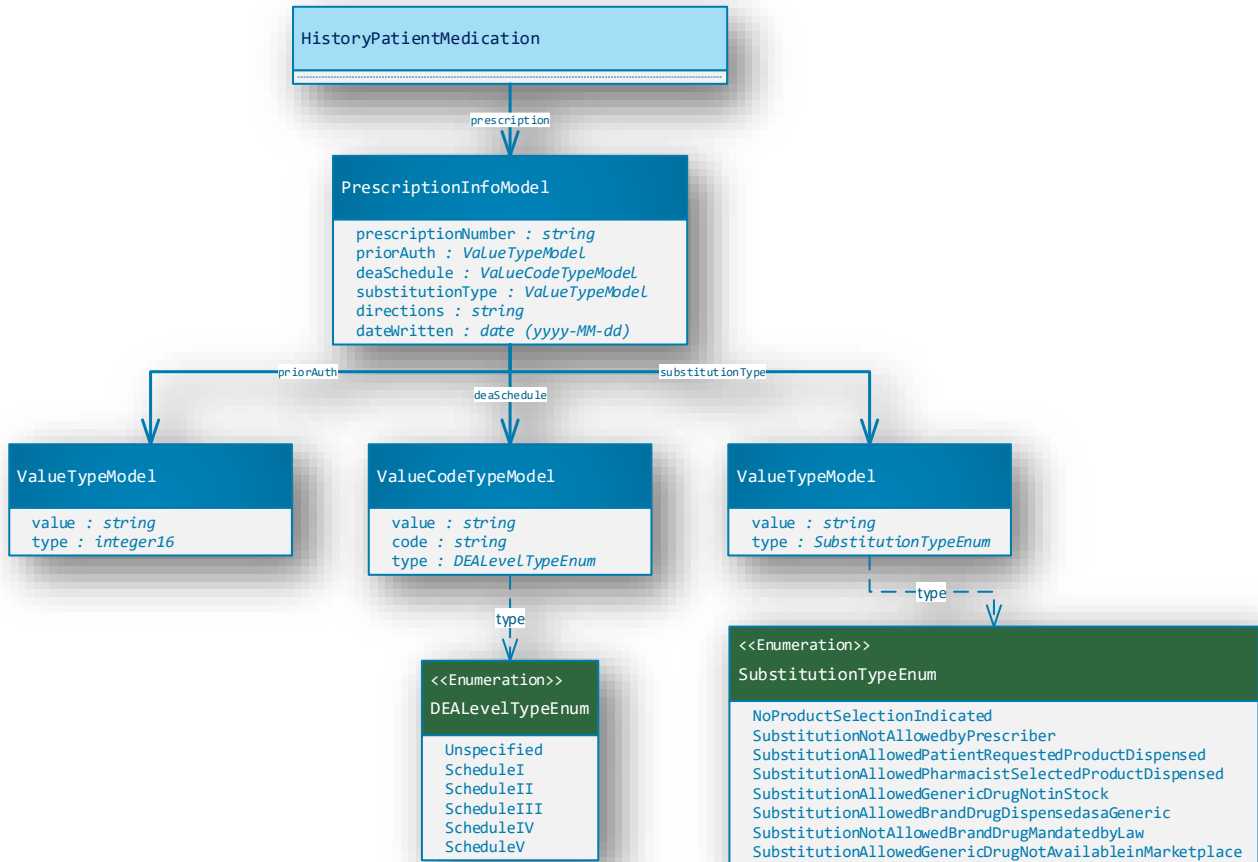
```

    "description": "Patch",
    "code": ""
  },
  "formValue": {
    "description": "PATCH,TRANSDERMAL 3 DAY",
    "code": null
  },
  "ndc": "10019055303",
  "productName": "TRANSDERM-SCOP",
  "category": "UNSPECIFIED",
  "manufacturer": "BAXTER HEALTHCA",
  "description": "TRANSDERM-SCOP 1.5 MG/3 DAY"
},

```

Field	Required	Description
productCode	No	See Value Type Model . Contains the product code information like NDC or UPC
strength	No	See Value Description Code Model . Contains strength information about the drug prescribed including the value, NCPDP code and description on the strength.
form	No	See Description Code Model . Contains the NCPDP code and description for the form of the medication
ndc	No	National Drug Code for a medication returned. Only returned when productCode includes a valid NDC or a match can be made to a medication.
productName	No	The brand name of the drug without strength and form information.
category	No	When included, indicates the category of the drug that is commonly treated as an exception in third party plans.
manufacturer	No	When included, indicates the manufacturer for the NDC.
description	Yes	Full description of the drug filled for the patient.

5.4.4 PRESCRIPTION INFO MODEL



SAMPLE

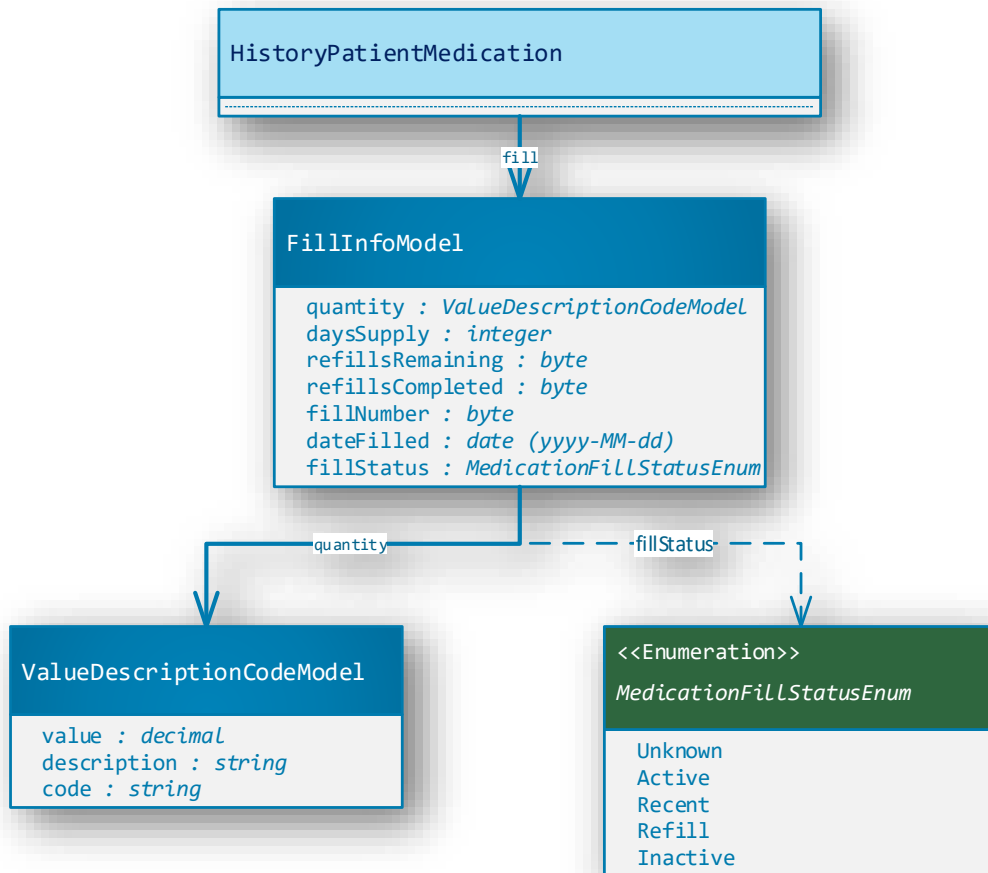
```

{
  "prescription": {
    "prescriptionNumber": "266603",
    "priorAuth": {
      "value": "",
      "type": -1
    },
    "deaSchedule": {
      "value": "Unspecified",
      "code": "C38046",
      "type": 0
    },
    "substitutionType": {
      "value": "NoProductSelectionIndicated",
      "type": 0
    },
    "directions": "APPLY one PATCH TO SKIN EVERY THREE DAYS. APPLY behind THE ear",
    "dateWritten": "2019-04-25"
  }
}
  
```

},

Field	Required	Description
prescriptionNumber	No	When included, indicates the associated prescription number for the record.
priorAuth	No	See Value Type Model . Contains information regarding the authorization of a medication where one is needed by the PBM.
deaSchedule	No	See Value Code Type Model . Contains a description of the DEA schedule, NCPDP code and DEA Level Type code
substitutionType	No	See Value Type Model . Contains a description and Substitution Type code.
directions	No	Contains any available directions for use from the prescriber.
dateWritten	No	When available, contains the date the prescription was written for the patient.

5.4.5 FILL INFO MODEL

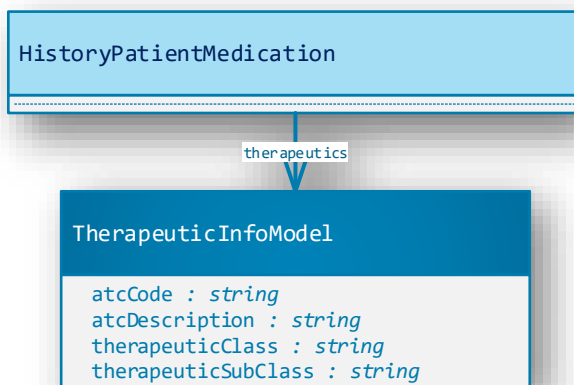


SAMPLE

```
"fill": {
  "quantity": {
    "value": 10,
    "description": null,
    "code": "C48524"
  },
  "daysSupply": 30,
  "refillsRemaining": 0,
  "refillsCompleted": 0,
  "fillNumber": 1,
  "dateFilled": "2019-05-18",
  "fillStatus": "Recent"
},
```

Field	Required	Description
quantity	Yes	See Value Description Code Model . Contains the quantity dispensed and NCPDP code with text description of the quantity type when available. Only the value is required.
daysSupply	No	Contains the days the fill record is expected to last a patient based on prescribing directions.
refillsRemaining	N/A	Not currently implemented.
refillsCompleted	N/A	Not currently implemented.
fillNumber	N/A	Not currently implemented.
dateFilled	Yes	Contains the date the prescription was indicated as filled.
fillStatus	Yes	See Medication Fill Status . Any refill considered active will be listed as active while all others are listed as refill. Recent medications are medications filled within 6 months that are no longer active.

5.4.6 THERAPEUTIC INFO MODEL



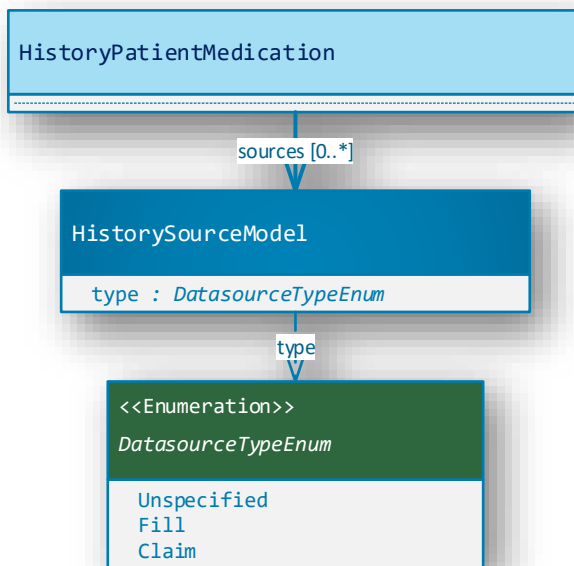
SAMPLE

```
"therapeutics": {
```

```
"atcCode": "A04AD01",
"atcDescription": "SCOPOLAMINE",
"therapeuticClass": "Gastrointestinal Therapy
Agents",
"therapeuticSubClass": "Antiemetic -
Anticholinergics"
},
```

Field	Required	Description
atcCode	No	Contains the Anatomical Therapeutic Chemical (ATC) code for the drug.
atcDescription	No	Contains the Anatomical Therapeutic Chemical (ATC) description for the drug.
therapeuticClass	No	Contains a proprietary base classification of the drug
therapeuticSubClass	No	Contains a proprietary specific classification of the drug

5.4.7 HISTORY SOURCE MODEL

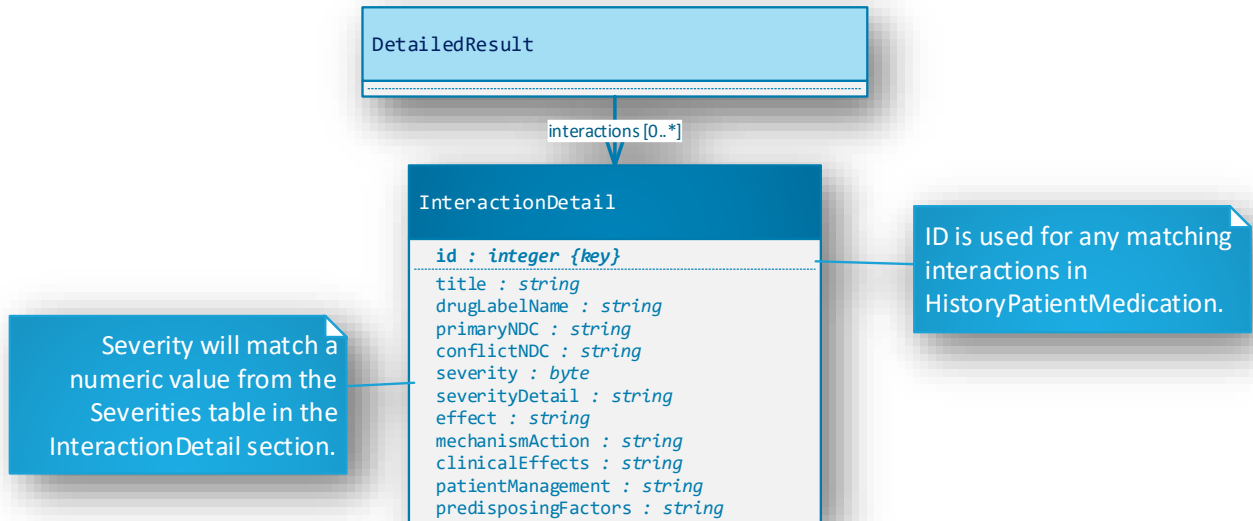


SAMPLE

```
"sources": [
  {"type": "Fill"},
  {"type": "Claim"}
]
```

Field	Required	Description
type	Yes	See Data Source Type. Specifies the source for the medication details.

5.4.8 INTERACTION DETAIL

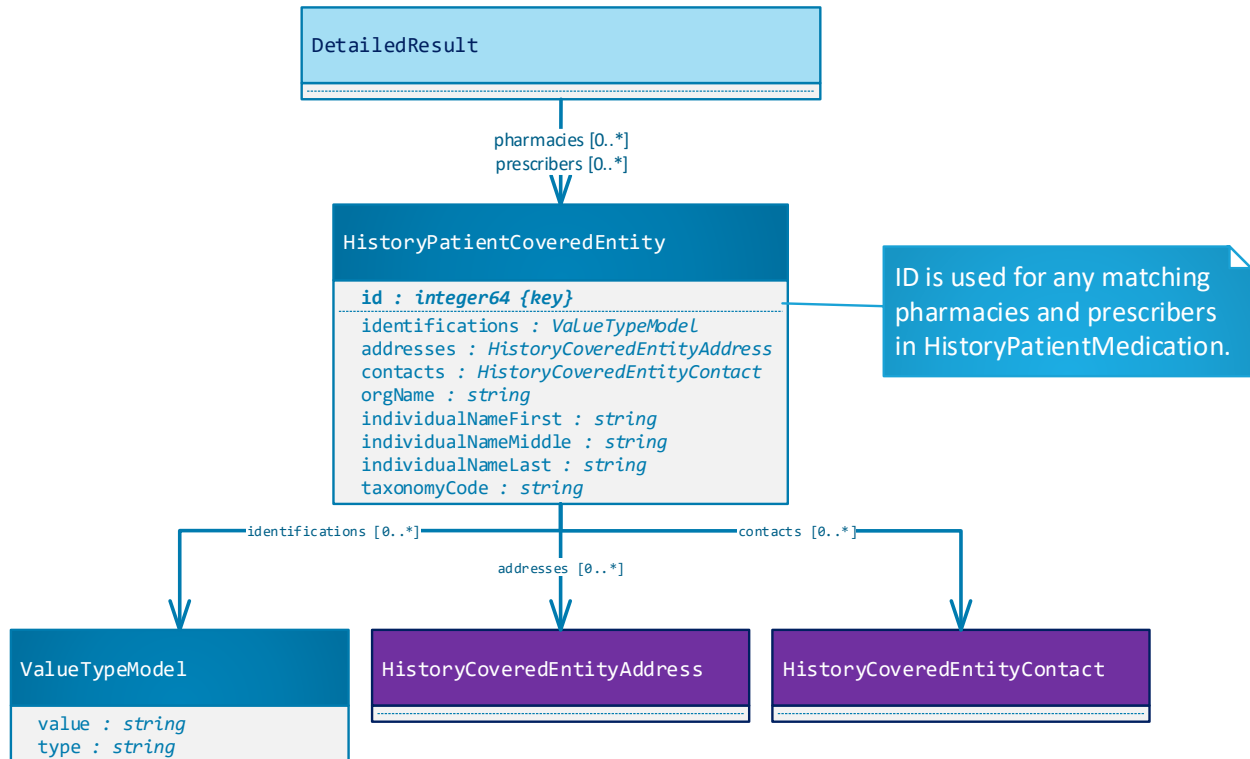


Field	Required	Description
id	Yes	Numeric ID that a patient fill record will use to associate to this interaction
title	No	Text containing a summary of the interaction
drugLabelName	Yes	Contains the Label Name of the primary NDC
primaryNDC	Yes	Indicates the NDC that was searched.
conflictNDC	Yes	Indicates the NDC that is in conflict.
severity	Yes	Level of the severity. See Below.
severityDetail	Yes	Text based description of the severity level.
effect	No	Text describing the effect relationship between the medications. (i.e. additive, contraindicated, etc...)
mechanismAction	No	The mechanisms for which the medications interact between each other.
clinicalEffects	No	Clinical details of the interaction between the medications.
patientManagement	No	Recommendations for managing the patient with the interaction.
predisposingFactors	No	Factors for certain patients that could make the interaction more severe.

SEVERITIES

VALUE	LEVEL	DETAIL
1	Contraindicated Drug Combination	This conflict indicates a very serious combination of drugs that should generally not be taken together due to a contraindication.
2	Severe Interaction	This conflict indicates a potentially serious interaction that may cause very harmful effects.
3	Moderate Interaction	This conflict indicates a moderate severity of drugs that may cause some risk when taken together.
9	Undetermined Severity	These medications may cause some risk when taken together.

5.4.9 HISTORY PATIENT COVERED ENTITY



SAMPLE

```

{
  "id": 1355,
  "identifications": [
    {
      "value": "1669559001",
      "type": "NPI"
    },
    {
      "value": "BB0963024",
      "type": "DEANumber"
    }
  ],
  "addresses": [
    <See HistoryCoveredEntityAddress>
  ],
  "contacts": [
    <See HistoryCoveredEntityContact>
  ],
  "individualNameFirst": "Janet",
  "individualNameLast": "Bergeron",
  "taxonomyCode": "207Q00000X"
},

```



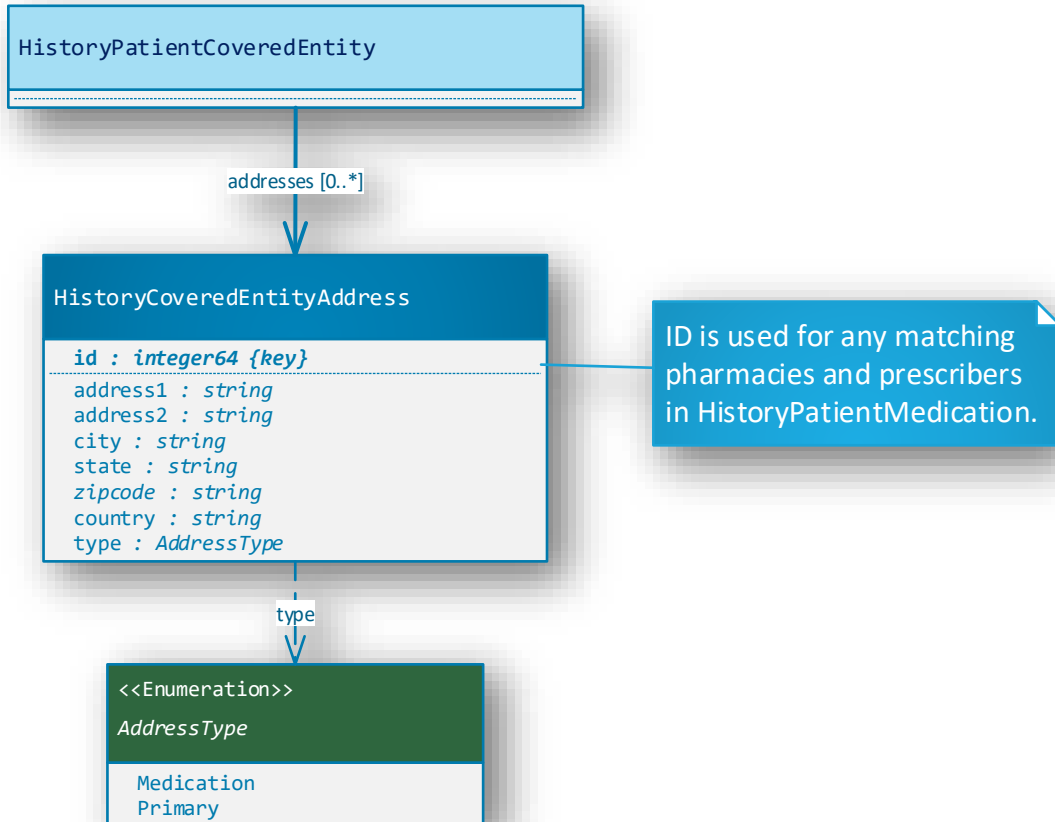
Field	Required	Description
id	Yes	Numeric ID that a patient fill record will use to associate to this entity
identifications	No	See Value Type Model . Contains a list of identification values and types for the covered entity. See Below.
addresses	No	See History Covered Entity Address . Contains a list of all associated addresses from the medications to this covered entity.
contacts	No	See History Covered Entity Contact . Contains a list of all associated contact details from the medications to this covered entity.
orgName	No	Organization name for the covered entity for non-individual entities.
individualNameFirst	No	First name for the covered entity for individual entities.
individualNameMiddle	No	Middle name for the covered entity for individual entities.
individualNameLast	No	Last name for the covered entity for individual entities.
taxonomyCode¹	No	Specialty taxonomy code for the provider. This code is only included on entities with an NPI currently.

IDENTIFICATION TYPES

VALUE	DETAIL
NCPDP	National Council for Prescription Drug Programs (NCPDP) license number used primarily for pharmacies
DEANUMBER	Drug Enforcement Administration (DEA) license number used by prescribers
NPI	National Provider Identifier (NPI) license number
STATELICENSE	License for the entity provided by the state

¹ Taxonomy Codes are only provided when a customer is configured to receive them. To be enabled, please contact the ESI Sales team.

5.4.10 HISTORY COVERED ENTITY ADDRESS



SAMPLE

```

{
  "id": 2110,
  "address1": "Lakeview Clinic",
  "address2": null,
  "city": "Norwood",
  "state": "MN",
  "zipcode": "55368",
  "country": "USA",
  "type": "Medication"
}
  
```

Field	Required	Description
id	Yes	Numeric ID that a patient fill record will use to associate to this entity
address1	No	Address Line 1 for the covered entity
address2	No	Address Line 2 for the covered entity
city	No	City for the covered entity

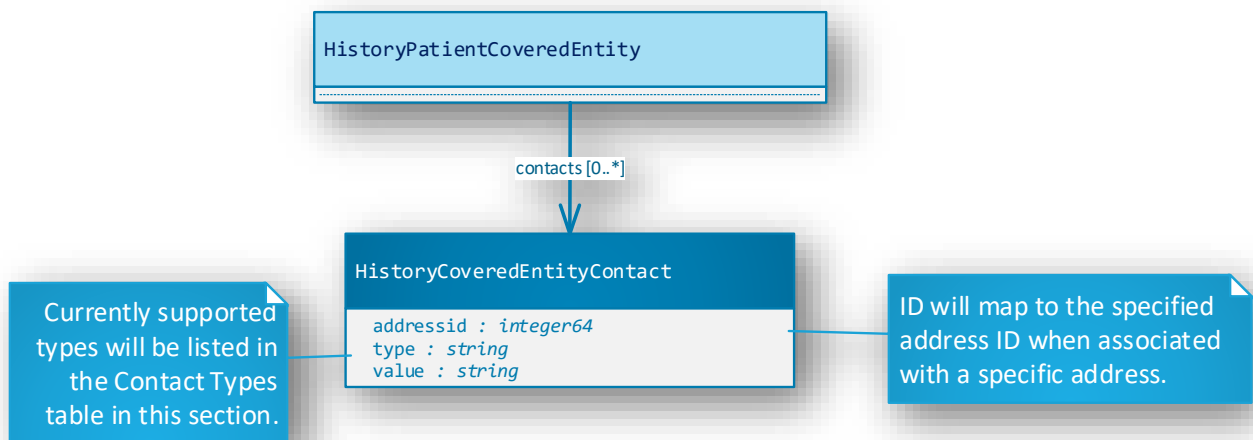


state	No	State for the covered entity
zipcode	No	Postal Code for the covered entity
country	No	Country the address is in
type	Yes	Indicates the type of address provided. See Below.

ADDRESS TYPES

VALUE	DETAIL
MEDICATION	Address is specific to a medication provided.
PRIMARY	When included, indicates the primary address found for a covered entity through lookup of the covered entity identification

5.4.11 HISTORY COVERED ENTITY CONTACT



SAMPLE

```

{
  "type": "Telephone",
  "value": "9524672888"
},
{
  "type": "Fax",
  "value": "9524673258"
},

```

Field	Required	Description
addressid	No	When included, indicates the specific address within the covered entity associated with the contact details
type	Yes	Indicates the type of contact information provided. See Below.
value	Yes	Value for the contact detail based on the type provided.



CONTACT TYPES

VALUE	DETAIL
BEEPER	Pager number for the covered entity.
CELLULAR	
FAX	Fax number for the covered entity.
HOME	
NIGHT	Preferred phone number for contacting the covered entity during nighttime hours.
TELEPHONE	Primary phone number for the covered entity.
WORK	
ELECTRONIC	Email address used for electronic correspondence to the covered entity.
MAIL	
OTHER	Indicates a contact detail that does not fall under the list above.

5.5 COMPONENT MODELS

Many of the models used in requests and responses use common shared models for the information. These models are defined below with a brief description of the field, but specifics of the contents of a model will be listed in the instance of the model that uses one of these components.

5.5.1 VALUE TYPE MODEL

Value Type Models are used in instances where there is a value for the item and an associated type ID for the item.

Field	Required	Description
value	No	Value of the item
type	No	ESI type code for the item

5.5.2 VALUE DESCRIPTION CODE MODEL

Value, description, code models are used in places where there is a value, associated description of the model, and NCPDP code for the value typically associated with the description.

Field	Required	Description
value	No	Value of the item
description	No	Text based description or value summary
code	No	NCPDP Code for the item

5.5.3 DESCRIPTION CODE MODEL

Description, code models are used in places where only a description and associated NCPDP code are required.

Field	Required	Description
description	No	Text based description or value summary
code	No	NCPDP Code for the item



5.5.4 VALUE CODE TYPE MODEL

Value, type ID, code models are used in places where there is a value, associated NCPDP code and ESI type ID for the value.

Field	Required	Description
value	No	Value for the item
code	No	NCPDP Code for the item
type	No	ESI type code for the item

5.6 VALUES

Values are used in places where there are limited options for fields of models. For request models, it is acceptable to use either the numeric value or the text value. For all ESI responses, the text model will be provided.

5.6.1 MEDICATION HISTORY CONSENT

Consent is used as part of auditing and compliance. It ensures that the patient is the individual authorizing the access of medication history. Consent that is submitted as NotProvided will not be allowed to access medication history.

Numeric	Text	Description
0	NotProvided	Patient has not consented to retrieving medication history.
1	PatientAnyProvider	Patient has given any provider consent to retrieve medication history.
2	PatientThisProvider	Patient has given only this provider consent to retrieve medication history.
3	GuardianAnyProvider	Patient's guardian has given any provider consent to retrieve medication history for the patient.
4	GuardianThisProvider	Patient's guardian has given only this provider consent to retrieve medication history for the patient.

5.6.2 INCLUDE INTERACTIONS FLAG

Interactions for ESI can be presented based on medication status. Recent medications are ones that were filled within the last 6 months for a patient.

Numeric	Text	Description
0	None	Do not include results on interactions for medications
1	Active	Only test for interactions between medications considered to be active
2	Recent	Include medications the patient has taken in the last 6 months as part of interaction checking.

5.6.3 PATIENT GENDER

Numeric	Text	Description
0	Unspecified	Gender of the patient is unknown. Please note this may limit the ability to pull results.



1	Male	Patient identified as Male
2	Female	Patient identifies as Female

5.6.4 TRANSACTION STATUS

Transaction status is used to track the state of a request through completion. This is separate from the patient status and should be considered for whether the request processed successfully. Error codes over 200 are initiated during request validation before a request processing has started.

Numeric	Text	Description
0	Unknown	Transaction has ended up in a state that cannot be determined. Please contact ESI support.
1	Pending	Transaction is currently pending and waiting to be processed.
2	Processing	Transaction is currently being processed.
3	NotConsented	The patient did not present consent and the transaction has been cancelled.
4	Error	The transaction has ended up in an error state. Please contact ESI support for additional information.
5	Completed	The transaction has been completed successfully.
200	InvalidRequest	The request is missing either patient or requestor information. Please correct the request and try again.
201	RequestorIdentificationRequired	The transaction is missing the "requestorIdentification" and is required for a system level request. Please correct the request and try again.
202	MissingProviderName	The requestor provider name is missing. Please correct the request and try again.
203	MissingProviderNPI	The requestor provider NPI is missing. Please correct the request and try again.
204	InvalidProviderNPI	The provided NPI for the provider is invalid. Please correct the request and try again.
205	MissingRequiredPatientDetails	The patient details are missing or invalid. Please correct the request and try again.

5.6.5 CACHE STATUS

Cache status is used to track whether data included in the results comes from prior requests for the patient based on either global or customer specific configurations.

Numeric	Text	Description
1	NotCached	Indicates the results are fresh from the data sources with no previous data added to the data set
2	PartialCache	Indicates that the result contains partial data that has been supplemented with an earlier request of data.
3	FullCache	If the customer account is configured for it, represents a duplicate request within the minimum window between duplicate requests. No additional data will be returned from data sources.



5.6.6 PATIENT STATUS

Patient status contains a status on whether the patient was found. Codes 1-99 are reserved for cases where there were processing issues from the data sources. Codes 100-199 are reserved for cases where the patient was not found. Codes 200-299 are reserved for cases where the patient was found.

Numeric	Text	Description
1	Error	There was an internal error attempting to locate the patient and no data could be returned. Please contact ESI if the issue persists.
100	NotFound	The patient could not be found in any of the ESI data sources.
200	Found	The patient was found with medications.
201	FoundNoMeds	The patient was found in the data sources, but no medications were within the search window of 1 year.
202	FoundPartial	The patient was found with medications, but some of the data sources could not be contacted for a complete report.

5.6.7 DEA LEVEL TYPE

Cases where the medication is listed nationally as a scheduled medication will contain a value from the table below.

Numeric	Text	Description
0	Unspecified	The drug is not currently classified as a scheduled drug
1	ScheduleI	The drug is classified as a Schedule 1 drug nationally.
2	ScheduleII	The drug is classified as a Schedule 2 drug nationally.
3	ScheduleIII	The drug is classified as a Schedule 3 drug nationally.
4	ScheduleIV	The drug is classified as a Schedule 4 drug nationally.
5	ScheduleV	The drug is classified as a Schedule 5 drug nationally.

5.6.8 SUBSTITUTION TYPE

Numeric	Text	Description
0	NoProductSelectionIndicated	
1	SubstitutionNotAllowedbyPrescriber	
2	SubstitutionAllowedPatientRequestedProductDispensed	
3	SubstitutionAllowedPharmacistSelectedProductDispensed	
4	SubstitutionAllowedGenericDrugNotInStock	
5	SubstitutionAllowedBrandDrugDispensedasaGeneric	
7	SubstitutionNotAllowedBrandDrugMandatedbyLaw	
8	SubstitutionAllowedGenericDrugNotAvailableinMarketplace	

5.6.9 MEDICATION FILL STATUS

Medication fill status codes are used to indicate the current status of a medication. Calculations on the status codes are relative and may not represent the true status of the medication.

Numeric	Text	Description
---------	------	-------------



0	Unknown	Used internally. Please contact ESI if you receive this in your results.
1	Active	Medications are considered active if they have days left on the prescription based on the date filled and the days supply. When included on a refill, indicates that the refill can still be considered active.
2	Recent	Medications are considered recent if they have been filled in the last 6 months but are no longer considered active.
3	Refill	Status for all medications classified as a refill that are no longer active.
4	Inactive	Used for the most recent fill of a prescription that is no longer considered active or recent.

SECTION 6 EXAMPLES

6.1 EXAMPLE 1

REQUEST

```
{
  "patient": {
    "firstName": "JOSEF",
    "lastName": "WILSON",
    "postalCode": "55427",
    "birthDate": "1980-09-11",
    "gender": "Male"
  },
  "requestor": {
    "providerName": "smith ",
    "providerNpi": "1245319599"
  },
  "consent": "PatientAnyProvider",
  "customerTransactionReference": "SimpleTest1",
  "requestorIdentification": "demo@esihealthcaresolutions.com",
  "returnFormat": "Detailed",
  "interactionsCheck": "Recent"
}
```

RESPONSE

```
{
  "transactionId": 246,
  "requestedDate": "2019-04-30T06:11:41.2650454-07:00",
  "status": "Completed",
  "cacheStatus": "NotCached",
  "isBillable": true,
  "requestor": {
    "providerName": "smith",
    "providerNpi": "1932418555"
  },
  "requestorIdentification": "demo@esihealthcaresolutions.com",
  "consent": "PatientAnyProvider",
  "customerTransactionReference": "SimpleTest1",
  "detailedResult": {
    "patientStatus": "Found",
    "medications": [
```

```
{
  "refills": [],
  "drug": {
    "productCode": {
      "value": "62794014601",
      "type": 2
    },
    "strength": {
      "value": "250 mcg",
      "description": "Tablet",
      "code": null
    },
    "formValue": {
      "description": "TABLET",
      "code": null
    },
    "ndc": "62794014601",
    "productName": "DIGITEK",
    "category": "UNSPECIFIED",
    "manufacturer": "BERTEK PHARM",
    "description": "DIGITEK 250 MCG TABLET"
  },
  "prescription": {
    "prescriptionNumber": null,
    "priorAuth": {
      "value": null,
      "type": -1
    },
    "deaSchedule": {
      "value": "Unspecified",
      "code": "C38046",
      "type": 0
    },
    "substitutionType": {
      "value": "NoProductSelectionIndicated",
      "type": 0
    },
    "directions": null,
    "dateWritten": null
  },
  "fill": {
    "quantity": {
      "value": 30,
      "description": null,
      "code": "C48542"
    },
    "daysSupply": 30,
    "refillsRemaining": null,
    "refillsCompleted": null,
    "fillNumber": null,
    "dateFilled": "2015-06-11",
    "fillStatus": "Inactive"
  },
  "therapeutics": {
    "atcCode": "C01AA05",
    "atcDescription": "DIGOXIN",
    "therapeuticClass": "Cardiovascular Therapy Agents",
    "therapeuticSubClass": "Digitalis Glycosides"
  },
  "top200DispensedRank": null,
  "top50GenericDispensedRank": null,
  "associatedInteractionIds": [],
  "pharmacyId": 417,
}
```

```

"pharmacyAddressId": 374,
"prescriberId": 418,
"prescriberAddressId": 375,
"sources": [
  {
    "type": "Claim"
  }
],
{
  "refills": [
    {
      "drug": {
        "productCode": {
          "value": "00173026427",
          "type": 2
        },
        "strength": {
          "value": "50 mcg/mL",
          "description": "Milliliter",
          "code": null
        },
        "formValue": {
          "description": "SOLUTION, ORAL",
          "code": null
        },
        "ndc": "00173026427",
        "productName": "LANOXIN",
        "category": "UNSPECIFIED",
        "manufacturer": "GLAXOSMITHKLINE",
        "description": "LANOXIN 50 MCG/ML ELIXIR"
      },
      "prescription": {
        "prescriptionNumber": null,
        "priorAuth": {
          "value": null,
          "type": -1
        },
        "deaSchedule": {
          "value": "Unspecified",
          "code": "C38046",
          "type": 0
        },
        "substitutionType": {
          "value": "NoProductSelectionIndicated",
          "type": 0
        },
        "directions": null,
        "dateWritten": null
      },
      "fill": {
        "quantity": {
          "value": 1,
          "description": null,
          "code": "C28254"
        },
        "daysSupply": 30,
        "refillsRemaining": null,
        "refillsCompleted": null,
        "fillNumber": null,
        "dateFilled": "2015-03-05",
        "fillStatus": "Refill"
      }
    }
  ],
  "fill": {
    "quantity": {
      "value": 1,
      "description": null,
      "code": "C28254"
    },
    "daysSupply": 30,
    "refillsRemaining": null,
    "refillsCompleted": null,
    "fillNumber": null,
    "dateFilled": "2015-03-05",
    "fillStatus": "Refill"
  }
}

```



```

        "therapeutics": {
          "atcCode": "C01AA05",
          "atcDescription": "DIGOXIN",
          "therapeuticClass": "Cardiovascular Therapy Agents",
          "therapeuticSubClass": "Digitalis Glycosides"
        },
        "top200DispensedRank": null,
        "top50GenericDispensedRank": null,
        "associatedInteractionIds": [],
        "pharmacyId": 417,
        "pharmacyAddressId": 374,
        "prescriberId": 418,
        "prescriberAddressId": 375,
        "sources": [
          {
            "type": "Claim"
          }
        ]
      },
    ],
    "drug": {
      "productCode": {
        "value": "00173026427",
        "type": 2
      },
      "strength": {
        "value": "50 mcg/mL",
        "description": "Milliliter",
        "code": null
      },
      "formValue": {
        "description": "SOLUTION, ORAL",
        "code": null
      },
      "ndc": "00173026427",
      "productName": "LANOXIN",
      "category": "UNSPECIFIED",
      "manufacturer": "GLAXOSMITHKLINE",
      "description": "LANOXIN 50 MCG/ML ELIXIR"
    },
    "prescription": {
      "prescriptionNumber": null,
      "priorAuth": {
        "value": null,
        "type": -1
      },
      "deaSchedule": {
        "value": "Unspecified",
        "code": "C38046",
        "type": 0
      },
      "substitutionType": {
        "value": "NoProductSelectionIndicated",
        "type": 0
      },
      "directions": null,
      "dateWritten": null
    },
    "fill": {
      "quantity": {
        "value": 1,
        "description": null,
        "code": "C28254"
      }
    }
  }

```

```

    },
    "daysSupply": 30,
    "refillsRemaining": null,
    "refillsCompleted": null,
    "fillNumber": null,
    "dateFilled": "2015-06-01",
    "fillStatus": "Inactive"
  },
  "therapeutics": {
    "atcCode": "C01AA05",
    "atcDescription": "DIGOXIN",
    "therapeuticClass": "Cardiovascular Therapy Agents",
    "therapeuticSubClass": "Digitalis Glycosides"
  },
  "top200DispensedRank": null,
  "top50GenericDispensedRank": null,
  "associatedInteractionIds": [],
  "pharmacyId": 419,
  "pharmacyAddressId": 0,
  "prescriberId": 0,
  "prescriberAddressId": 0,
  "sources": [
    {
      "type": "Claim"
    }
  ]
},
{
  "refills": [
    {
      "drug": {
        "productCode": {
          "value": "00173024275",
          "type": 2
        },
        "strength": {
          "value": "125 mcg",
          "description": "Tablet",
          "code": null
        },
        "formValue": {
          "description": "TABLET",
          "code": null
        },
        "ndc": "00173024275",
        "productName": "LANOXIN",
        "category": "UNSPECIFIED",
        "manufacturer": "COVIS PHARMACEU",
        "description": "LANOXIN 125 MCG TABLET"
      },
      "prescription": {
        "prescriptionNumber": null,
        "priorAuth": {
          "value": null,
          "type": -1
        },
        "deaSchedule": {
          "value": "Unspecified",
          "code": "C38046",
          "type": 0
        },
        "substitutionType": {
          "value": "NoProductSelectionIndicated",

```

```

        "type": 0
    },
    "directions": null,
    "dateWritten": null
},
"fill": {
    "quantity": {
        "value": 30,
        "description": null,
        "code": "C48542"
    },
    "daysSupply": 30,
    "refillsRemaining": null,
    "refillsCompleted": null,
    "fillNumber": null,
    "dateFilled": "2015-04-05",
    "fillStatus": "Refill"
},
"therapeutics": {
    "atcCode": "C01AA05",
    "atcDescription": "DIGOXIN",
    "therapeuticClass": "Cardiovascular Therapy Agents",
    "therapeuticSubClass": "Digitalis Glycosides"
},
"top200DispensedRank": null,
"top50GenericDispensedRank": null,
"associatedInteractionIds": [],
"pharmacyId": 417,
"pharmacyAddressId": 374,
"prescriberId": 418,
"prescriberAddressId": 375,
"sources": [
    {
        "type": "Claim"
    }
]
},
{
    "drug": {
        "productCode": {
            "value": "62794014510",
            "type": 2
        },
        "strength": {
            "value": "125 mcg",
            "description": "Tablet",
            "code": null
        },
        "formValue": {
            "description": "TABLET",
            "code": null
        },
        "ndc": "62794014510",
        "productName": "DIGITEK",
        "category": "UNSPECIFIED",
        "manufacturer": "BERTEK PHARM",
        "description": "DIGITEK 125 MCG TABLET"
    },
    "prescription": {
        "prescriptionNumber": null,
        "priorAuth": {
            "value": "9383729",
            "type": -1
        }
    }
}

```

```

    },
    "deaSchedule": {
      "value": "Unspecified",
      "code": "C38046",
      "type": 0
    },
    "substitutionType": {
      "value": "NoProductSelectionIndicated",
      "type": 0
    },
    "directions": null,
    "dateWritten": "2015-03-31"
  },
  "fill": {
    "quantity": {
      "value": 30,
      "description": null,
      "code": "C48542"
    },
    "daysSupply": 30,
    "refillsRemaining": null,
    "refillsCompleted": null,
    "fillNumber": null,
    "dateFilled": "2015-04-02",
    "fillStatus": "Refill"
  },
  "therapeutics": {
    "atcCode": "C01AA05",
    "atcDescription": "DIGOXIN",
    "therapeuticClass": "Cardiovascular Therapy Agents",
    "therapeuticSubClass": "Digitalis Glycosides"
  },
  "top200DispensedRank": null,
  "top50GenericDispensedRank": null,
  "associatedInteractionIds": [],
  "pharmacyId": 0,
  "pharmacyAddressId": 0,
  "prescriberId": 0,
  "prescriberAddressId": 0,
  "sources": [
    {
      "type": "Claim"
    }
  ]
},
"drug": {
  "productCode": {
    "value": "62794014510",
    "type": 2
  },
  "strength": {
    "value": "125 mcg",
    "description": "Tablet",
    "code": null
  },
  "formValue": {
    "description": "TABLET",
    "code": null
  },
  "ndc": "62794014510",
  "productName": "DIGITEK",
  "category": "UNSPECIFIED",

```



```
        "manufacturer": "BERTEK PHARM",
        "description": "DIGITEK 125 MCG TABLET"
    },
    "prescription": {
        "prescriptionNumber": null,
        "priorAuth": {
            "value": null,
            "type": -1
        },
        "deaSchedule": {
            "value": "Unspecified",
            "code": "C38046",
            "type": 0
        },
        "substitutionType": {
            "value": "NoProductSelectionIndicated",
            "type": 0
        },
        "directions": null,
        "dateWritten": null
    },
    "fill": {
        "quantity": {
            "value": 30,
            "description": null,
            "code": "C48542"
        },
        "daysSupply": 30,
        "refillsRemaining": null,
        "refillsCompleted": null,
        "fillNumber": null,
        "dateFilled": "2015-05-07",
        "fillStatus": "Inactive"
    },
    "therapeutics": {
        "atcCode": "C01AA05",
        "atcDescription": "DIGOXIN",
        "therapeuticClass": "Cardiovascular Therapy Agents",
        "therapeuticSubClass": "Digitalis Glycosides"
    },
    "top200DispensedRank": null,
    "top50GenericDispensedRank": null,
    "associatedInteractionIds": [],
    "pharmacyId": 417,
    "pharmacyAddressId": 374,
    "prescriberId": 418,
    "prescriberAddressId": 375,
    "sources": [
        {
            "type": "Claim"
        }
    ]
},
"interactions": [],
"pharmacies": [
    {
        "id": 417,
        "identifications": [
            {
                "value": "2121767",
                "type": "NCPDP"
            }
        ]
    }
]
```

```

    ],
    "addresses": [
      {
        "id": 374,
        "address1": "2132 OLD SNOW HILL RD",
        "address2": null,
        "city": "POCOMOKE CITY",
        "state": "MD",
        "zipcode": "21851",
        "country": "USA",
        "type": "Medication"
      }
    ],
    "contacts": [
      {
        "addressId": 374,
        "type": "Telephone",
        "value": "6518456325"
      }
    ],
    "orgName": "WAL-MART #2514"
  },
  {
    "id": 419,
    "identifications": [
      {
        "value": "0322038",
        "type": "NCPDP"
      }
    ],
    "addresses": [],
    "contacts": [
      {
        "type": "Telephone",
        "value": "8774831324"
      }
    ],
    "orgName": "AdvanceRx.com"
  }
],
"prescribers": [
  {
    "id": 418,
    "identifications": [
      {
        "value": "LM7493353",
        "type": "DEANumber"
      }
    ],
    "addresses": [
      {
        "id": 375,
        "address1": "2155 POST OAK TRITT RD",
        "address2": null,
        "city": "MARIETTA",
        "state": "GA",
        "zipcode": "30062",
        "country": "USA",
        "type": "Medication"
      }
    ],
    "contacts": [],
    "individualNameFirst": "RHONDA",

```



```
}  
  }  
    ]  
      }  
        "individualNameLast": "JEFFRIES"
```

SECTION 7

ESI RX HISTORY™ REAL-TIME TECHNICAL SUPPORT

7.1 CONTACT INFORMATION

Email	RxHistory@esihealthcaresolutions.com
Website	http://www.esihealthcaresolutions.com
Local Phone	214-765-1796
Toll-free Phone	1-800-596-0847
Operating Hours	Monday to Friday 8am to 5pm Central