

Patagonia Health EHR Patient Data Access API Documentation

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Introduction

This document describes Patagonia Health EHR API for patient data access. Registered users can use this API to query the EHR for patient data. The API returns a JSON object with status and embedded CCDA XML. API examples below show how to access the API using curl.

Requirements

User must be an authorized user of the Patagonia Health EHR or user must have access to the Patagonia Health patient portal

Access to REST client (use curl, or any other programmatic REST client)

Ability to parse JSON and CCDA

API

Following sections describe the available API. URL for accessing the API is <https://phapi.patagoniaemr.com:31015/PatientService.svc/>

Authenticate user

Use your credentials to Patagonia Health EHR or Patagonia Health Patient Portal to authenticate with the API. API returns a token that will be used for all other API calls.

User name and password have to be encoded in Base64 with the call to curl. Use Basic authorization header for curl.

Example:

```
curl -X POST -k -H 'Authorization: Basic cGF0YWdvbmhlaGVhbHRodXNlcm5hbWU6MmphJERpcFVVJXdjNFdTKnoxT1E=' -i 'https://phapi.patagoniaemr.com:31015/PatientService.svc/authenticateuser'
```

Response:

```
{"TokenID": " 6b972240-2692-4002-a9f4-cf11031dfbde "}
```

Store the value TokenID. That TokenID will be used for all further calls to API

Search for a patient

Search for a patient from EHR using one or more parameters list below

- MRN
- Date of birth
- First name
- Last name

API will search for patients that match one or more these criteria and return up to 30 patients.

Examples:

Search using MRN:

```
curl -X POST -k -H 'Token: NmI5NzIyNDAtMjY5Mi00MDAyLWE5ZjQtY2YxMTAzMWRmYmRl '
'Authorization: Basic
cGF0YWdvbmhhaGVhbHRodXNlcm5hbWU6MmphJERpcFVVJXdjNFdTKnoxT1E=' -i
'https://phapi.patagoniaemr.com:31015/PatientService.svc/patientsearch?mrn=MR1234
5'
```

Response:

```
{
  "PatagoniaHealthPatientList" : [{
    "AddressLine1" : "1357, Amber Dr",
    "AddressLine2" : "",
    "City" : "Beaverton",
    "DateOfBirth" : "5\1\1970",
    "EmailAddress" : "phehr2008@gmail.com",
    "FirstName" : "Alice",
    "Gender" : "F",
    "HomePhoneNumber" : "(555) 555-1544",
    "LastName" : "Newman",
    "MRN" : "MR12345",
    "MiddleName" : "Jones",
    "State" : "OR",
    "Zipcode" : "97006"
  ]
},
  "Result" : "Success: Found 1 patients"
}
```

Search using last name and date of birth (dob)

```
curl -X POST -k -H 'Token: NmI5NzIyNDAtMjY5Mi00MDAyLWE5ZjQtY2YxMTAzMWRmYmRl '
'Authorization: Basic
```

```
cGF0YWdvbm1haGVhbnR0dXNlcm5hbWU6MmMphJERpcFVVJXdjNFdTKnoxTlE=' -i
'https://phapi.patagoniaemr.com:31015/PatientService.svc/patientsearch?lastname=s
mith&dob=2000-01-01'
```

Response

2 patients are found that match the date of birth and last name

```
{
  "PatagoniaHealthPatientList" : [{
    "AddressLine1" : "1357, Amber Dr",
    "AddressLine2" : "",
    "City" : "Beaverton",
    "DateOfBirth" : "01\1\2000",
    "EmailAddress" : "",
    "FirstName" : "Alice",
    "Gender" : "F",
    "HomePhoneNumber" : "",
    "LastName" : "Smith",
    "MRN" : "MR22345",
    "MiddleName" : "",
    "State" : "OR",
    "Zipcode" : "97006"
  },
  {
    "AddressLine1" : "234, Main St",
    "AddressLine2" : "",
    "City" : "Beaverton",
    "DateOfBirth" : "01\1\2000",
    "EmailAddress" : "",
    "FirstName" : "Jane",
    "Gender" : "F",
    "HomePhoneNumber" : "",
    "LastName" : "Smith",
    "MRN" : "MR32345",
    "MiddleName" : "",
    "State" : "OR",
    "Zipcode" : "97006"
  }
],
  "Result" : "Success: Found 2 patients"
}
```

Find the correct patient. Use that patient's MRN returned from these calls for remaining API

Get Patient CCDA

Request the entire CCDA for a patient, using the following command

```
curl -X POST -k -H 'Token: NmI5NzIyNDAtMjY5Mi00MDAyLWE5ZjQtY2YxMTAzMWRmYmRl '
'Authorization: Basic
cGF0YWdvbmhhaGVhbHRodXNlcm5hbWU6MmMphJERpcFVVJXdjNFdTknOXt1E=' -i
'https://phapi.patagoniaemr.com:31015/PatientService.svc/patientCCDA?mrn=MR12345'
```

Response

```
<?xml version="1.0"?>
<ClinicalDocument xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" moodCode="EVN"
xmlns="urn:hl7-org:v3" xmlns:sdtc="urn:hl7-org:sdtc">
  <code code="34133-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Summarization of Episode Note" />
  <effectiveTime value="20180225114039-0500" />
  <confidentialityCode code="N" codeSystem="2.16.840.1.113883.5.25" />
  <languageCode code="en-US" />
  <recordTarget>
    <patientRole>
      <id root="2.16.840.1.113883.4.1" extension="MR12345" />
      <addr use="HP">
        <streetAddressLine>1357, Amber Dr</streetAddressLine>
        <city>Beaverton</city>
        <state>OR</state>
        <postalCode>97006</postalCode>
      </addr>
      <telecom value="tel:(555)723-1544" use="HP" />
      <telecom value="tel:(555)777-1234" use="MC" />
      <patient>
        <name use="L">
          <given>Alice</given>
          <given>Jones</given>
          <family>Newman</family>
        </name>
        <administrativeGenderCode code="F" codeSystem="2.16.840.1.113883.5.1"
codeSystemName="AdministrativeGender" displayName="Female" />
        <birthTime value="19700501" />
        <maritalStatusCode code="M" codeSystem="2.16.840.1.113883.5.2"
codeSystemName="MaritalStatus" displayName="Married" />
        <raceCode code="2106-3" codeSystem="2.16.840.1.113883.6.238"
codeSystemName="Race and Ethnicity- CDC" displayName="White" />
        <ethnicGroupCode code="2186-5" codeSystem="2.16.840.1.113883.6.238"
codeSystemName="Race and Ethnicity Code Sets" displayName="Not Hispanic/Latino"
/>
        <languageCommunication>
          <languageCode code="en" />

```

```
</languageCommunication>
</patient>
</patientRole>
</recordTarget>
<!-- Standard CCDa elements here -->

</ClinicalDocument>
```

Get patient CCDa for a limited time range

In order to get records for a specific time period, use the same service with start date and end date parameters

```
curl -X POST -k -H 'Token: NmI5NzIyNDAtMjY5Mi00MDAyLWE5ZjQtY2YxMTAzMWRmYmRl '
'Authorization: Basic
cGF0YWdvbmhhaGVhbHRodXNlcm5hbWU6MmphJERpcFVVJXdjNFdTKnoxTlE=' -i
'https://phapi.patagoniaemr.com:31015/PatientService.svc/patientCCDA?mrn=MR12345&
startDate=2016-01-01&endDate=2018-01-01'
```

Start and end date are formatted as YYYY-MM-DD. The command above queries for data between Jan 1 2016 (2016-01-01) and Jan 1 2018 (2018-01-01)

Response will be the same CCDa as above, except the encounters will be restricted to date of service between Jan 1 2016 and Jan 1 2018.

Get Clinical Sections

Request specific clinical sections from a patient's CCDa using the following command format

```
curl -X POST -k -H 'Token: NmI5NzIyNDAtMjY5Mi00MDAyLWE5ZjQtY2YxMTAzMWRmYmRl '
'Authorization: Basic
cGF0YWdvbmhhaGVhbHRodXNlcm5hbWU6MmphJERpcFVVJXdjNFdTKnoxTlE=' -i
'https://phapi.patagoniaemr.com:31015/PatientService.svc/patientData
?mrn=MR12345&sectionName=<sectionName for API>'
```

In the command above, "sectionName for API" can be one of the following

sectionName value provided to API	Clinical Section returned by API
all	All
demographics	Patient Demographics
careteam	Care Team
allergies	Allergies and Intolerances
assessments	Assessment
encounters	Encounters
functionalstatus	Functional Status
goals	Goals
healthconcerns	Health Concerns

immunizations	Immunizations
medicalequipment	Medical Equipment
medications	Medications
mentalstatus	Mental Status
planoftreatment	Plan of Treatment
problem	Problem
procedures	Procedures
reasonforreferral	Reason for Referral
results	Results
socialhistory	Social History
vitalsigns	Vital Signs

Example:

If sectionName=demographics, following CCDAs will be returned

```

<!--CCDA Header -->
<patientRole>
  <id root="2.16.840.1.113883.4.1" extension="MR12345" />
  <addr use="HP">
    <streetAddressLine>1357, Amber Dr</streetAddressLine>
    <city>Beaverton</city>
    <state>OR</state>
    <postalCode>97006</postalCode>
  </addr>
  <telecom value="tel:(555)723-1544" use="HP" />
  <telecom value="tel:(555)777-1234" use="MC" />
</patient>
  <name use="L">
    <given>Alice</given>
    <given>Jones</given>
    <family>Newman</family>
  </name>
  <administrativeGenderCode code="F" codeSystem="2.16.840.1.113883.5.1"
codeSystemName="AdministrativeGender" displayName="Female" />
  <birthTime value="19700501" />
  <maritalStatusCode code="M" codeSystem="2.16.840.1.113883.5.2"
codeSystemName="MaritalStatus" displayName="Married" />
  <raceCode code="2106-3" codeSystem="2.16.840.1.113883.6.238"
codeSystemName="Race and Ethnicity- CDC" displayName="White" />
  <sdtc:raceCode code="2108-9" codeSystem="2.16.840.1.113883.6.238"
codeSystemName="Race and Ethnicity- CDC" displayName="EUROPEAN" xmlns="urn:hl7-
org:sdtc" />
  <ethnicGroupCode code="2186-5" codeSystem="2.16.840.1.113883.6.238"
codeSystemName="Race and Ethnicity Code Sets" displayName="Not Hispanic/Latino"
/>
  <languageCommunication>

```

```
<languageCode code="en" />
</languageCommunication>
</patient>
<!--CCDA footer -->
```

Get Clinical sections for a specific time period

In order to get records for a specific time period, use the same service with start date and end date parameters

```
curl -X POST -k -H 'Token: NmI5NzIyNDAtMjY5Mi00MDAyLWE5ZjQtY2YxMTAzMWRmYmRl '
'Authorization: Basic
cGF0YWdvbm1haGVhbmhRodXNlcm5hbWU6MmphJERpcFVVJXdjNFdTKnoxT1E=' -i
'https://phapi.patagoniaemr.com:31015/PatientService.svc/patientData?mrn=MR12345&
sectionName=<sectionName for API>?startDate=2016-01-01&endDate=2018-01-01'
```

Start and end date are formatted as YYYY-MM-DD. The command above queries for data between Jan 1 2016 (2016-01-01) and Jan 1 2018 (2018-01-01)

Response will be the same CCDA as above, except all clinical data will be restricted to date of service between Jan 1 2016 and Jan 1 2018.

Error Codes

Unauthorized access:

When user is not authorized to view requested data, following error will be generated

```
{"Result": "Error: Not authorized"}
```

Unauthenticated access:

If the user credentials are invalid or token has expired, following error will be generated

```
{"Result": "Error: User not authenticated"}
```

Patient not found:

If the patient record does not exist for the patient being requested, following error will be generated

```
{"Result": "Error: Patient not found"}
```

CCDA Section not found:

If the user calls service patientData with invalid section name, following error will be generated

```
{"Result": "Error: CCDA section not found"}
```

Too Many requests:

If the user makes too many service calls in a particular time period, following error will be generated

```
{"Result": "Error: Too many requests. Wait for X seconds before next request"}
```

API will inform user of how many seconds to wait before sending next request