

AdvancedMD Patient API v1.0.0

API User Guide

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1. Developer Terms of Service

Last Updated: July 17, 2018

These AdvancedMD Patient API Developer Terms of Service (“Developer Terms”) are a legal agreement between you (“Developer”, “you,” “your”) and AdvancedMD, Inc. (“AdvancedMD,” “we,” “our” or “us”) governing your use of AdvancedMD’s application programming interfaces (“APIs”), sample code and related documentation (collectively the “Licensed Materials”). By creating an application (“Developer App”) using the Patient APIs and related materials made available to you, you agree to be bound by these Developer Terms and any documentation and guidelines accompanying the Developer Tools.

1) Documentation and Access

- a) Patient API documentation, including detailed specifications of the Patient APIs, is freely available on the AdvancedMD Patient API Portal (“Portal”).
- b) In order to connect your Developer App to the Patient APIs, you will be required to register as an API Developer and register your Developer App. Upon registering your Developer App, AdvancedMD will provide an API key that may be passed with each API request. In addition, we will provide credentials to a sandbox database that you may use for testing.
- c) Patient APIs are provided to Developer free of charge. Consequently, no support services are provided to Developer as part of this agreement. If support services are required, Developer can contact AdvancedMD to acquire an AdvancedMD Connect Integration Developer License.

2) Development License

- a) AdvancedMD grants Developer a nonexclusive, nontransferable license to use the Licensed Materials only for the purpose of developing interfaces between the Developer App and AdvancedMD products using the Patient APIs, and not for any other purpose. Developer must register each application that uses the Patient APIs individually on the Portal. Without restriction on the foregoing, Developer may not:

- b) use the Licensed Materials for internal data processing or for any commercial or production purposes;
- c) remove or modify any proprietary markings or any notice of AdvancedMD's proprietary rights from the Licensed Materials;
- d) make the Licensed Materials available in any manner to any other third party, including an enduser client of AdvancedMD;
- e) use the Licensed Materials to provide third-party training;
- f) cause or permit reverse engineering, disassembly or decompilation of the Licensed Materials;
- g) disclose results of any program tests, including without limitation benchmark tests; or
- h) use any AdvancedMD name, trademark or logo, or certify any compliance with AdvancedMD standards except as specifically permitted under this Agreement.

3) Audit

Developer agrees that AdvancedMD may audit Developer's use of the License granted hereunder upon reasonable notice to Developer, but not less than three (3) business days.

4) Ownership
AdvancedMD retains all ownership and intellectual property rights in the Licensed Materials.

5) Relationship

The relationship between Developer and AdvancedMD is that of licensee/licensor. Neither party will represent that it has any authority to assume or create any obligation, express or implied, on behalf of the other party, nor to represent the other party as agent, employee, franchisee, or in any other capacity. Nothing in this Agreement shall be construed to limit either party's right to independently develop or distribute software that is functionally similar to the other party's products, so long as proprietary information of the other party is not included in such software.

6) Trademark Use

AdvancedMD grants Developer the right to use the AdvancedMD name (not including any other AdvancedMD trademarks or logos), for the sole purpose of identifying the Developer System(s) as interoperable with AdvancedMD's hosted applications. Under no circumstances may Developer represent or imply that the Developer System(s) or any integration solutions between the Developer System(s) and AdvancedMD's hosted applications are certified, approved, endorsed, or in any way recommended or reviewed by AdvancedMD. Such certification (and accompanying additional trademark and/or logo usage rights) may be made available to Developer under a separate agreement at AdvancedMD's sole discretion.

7) API Usage Pattern

While this Agreement does not place any pre-set restrictions on frequency or nature of application calls via the API Set, AdvancedMD may upon system monitoring review and at its sole discretion require Developer to modify the frequency and/or nature of such calls in consideration of overall system performance.

8) HIPAA

Developer understands and agrees that this Agreement prohibits the access to and use of AdvancedMD end-users' hosted application data including all Protected Health Information ("PHI") as defined by the

Health Insurance Portability and Accountability Act (“HIPAA”), unless such access is arranged directly between the Developer and the AdvancedMD end-user, whose relationship with the Developer must be covered under a separate Business Associate Agreement between those two parties and otherwise comply with all applicable laws.

9) Responsibility for Modification of Data

Developer acknowledges that, where permitted by AdvancedMD end-users, use of the API Set can result in changes to AdvancedMD end-users’ hosted application data. Developer accepts full and complete responsibility for changes to such data made by means of access to the API Set by or on behalf of Developer and/or Developer Systems, or by means of access by any third party to the extent such third party obtained access to the API Set as a result of intentional disclosure by Developer or any breach of this Agreement or any negligence by Developer, its personnel, agents or third-party contractors. AdvancedMD has no liability under this Agreement for any such changes, or for any consequences that may arise from such changes, including, but not limited to, incorrectly modified or lost data.

10) Confidentiality

- a) Developer acknowledges and agrees that the Licensed Materials comprise highly sensitive and confidential information of AdvancedMD. Developer agrees to treat the Licensed Materials, together with any other information or documentation provided by AdvancedMD in connection with the Licensed Materials, whether in tangible, electronic, oral or other format, as highly confidential information and retain it in confidence using the same degree of care it uses with respect to its own highly confidential information, but in no event less than reasonable care for such information. Developer specifically agrees that the Licensed Materials and other information provided hereunder will be accessible only by those employees and third-party consultants who (i) are directly involved with the Developer Programs; (ii) have a definite need to access the Licensed Materials and other information; and (iii) have entered into appropriate agreements with Developer binding them, as individuals or business entities, to the terms of agreements, including without limitation this Agreement, entered into between Developer and third parties. AdvancedMD shall treat confidential information received from Developer on the same basis as set forth above.
- b) Confidential Information of either party hereunder shall not include information that: (a) is or becomes a part of the public domain through no act or omission of the other party; (b) was in the other party's lawful possession prior to the disclosure and had not been obtained by the other party either directly or indirectly from the disclosing party; (c) is lawfully disclosed to the other party by a third party without restriction on disclosure; or (d) is independently developed by the other party.
- c) The confidentiality obligations under this Section of the Agreement shall survive termination of the Agreement for any reason. The parties acknowledge that money damages will not be an adequate remedy if this Section 9 is breached and, therefore, either party may, in addition to any other legal or equitable remedies, seek injunctive or other equitable relief against such breach or threatened breach without the necessity of posting any bond or surety. In the event that either party is requested or required for the purposes of legal, administrative, or arbitration to disclose

any Confidential Information, the party receiving such disclosure request will provide the other party with immediate written notice of any such request or requirement so that such party may seek an appropriate protective order or other relief.

11) Term and Termination

Developer's rights to use the Licensed Materials shall remain in effect until terminated hereunder. Either party may terminate this Agreement at any time upon thirty (30) days prior written notice if the other party commits a material breach that remains uncured after thirty (30) days written notice specifying the nature of the breach and identifying the measures required to correct the breach. Developer may terminate this Agreement at any time by returning or destroying all copies of the Licensed Materials.

12) No Warranty/Limitation of Liability

THE LICENSED MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND. ADVANCEDMD FURTHER DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT.

IN NO EVENT SHALL ADVANCEDMD BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, OR DAMAGES FOR LOSS OF PROFITS, REVENUE, DATA OR DATA USE, INCURRED BY YOU OR ANY THIRD PARTY, WHETHER IN AN ACTION IN CONTRACT OR TORT, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. APD ADVANCEDMD'S ENTIRE LIABILITY FOR DAMAGES HEREUNDER SHALL IN NO EVENT EXCEED ONE THOUSAND DOLLARS (U.S. \$1,000).

13) Governing Law and Dispute Resolution

This Agreement, and all matters arising out of or relating to this Agreement, shall be governed by the laws of the State of New York, without giving effect to principles regarding conflicts of laws. Any controversy or claim arising out of or relating to this Agreement, or breach thereof, shall be submitted to the following procedure: (a) direct negotiation in a settlement conference to be scheduled as soon as possible after the dispute arises and (b) if no settlement is reached within sixty (60) days of the start of such negotiation, either party may seek legal redress in a forum of competent jurisdiction.

14) Other Terms.

In the event any provision of this Agreement is held to be invalid or unenforceable, the remaining provisions of this Agreement will remain in full force. The waiver by either party of any default or breach of this Agreement shall not constitute a waiver of any other or subsequent default or breach. Except for actions for nonpayment or breach of AdvancedMD's proprietary rights in the Licensed Materials, no action, regardless of form, arising out of this Agreement may be brought by either party more than one year after the cause of action has accrued. This Agreement constitutes the complete agreement between the parties and supersedes all prior or contemporaneous agreements or representations, written or oral, concerning the subject matter of this Agreement. Developer may not assign this Agreement or any rights or obligations hereunder without prior written consent of AdvancedMD, which consent shall not be unreasonably withheld or delayed; any such assignment without prior consent shall be void.

2. Introduction

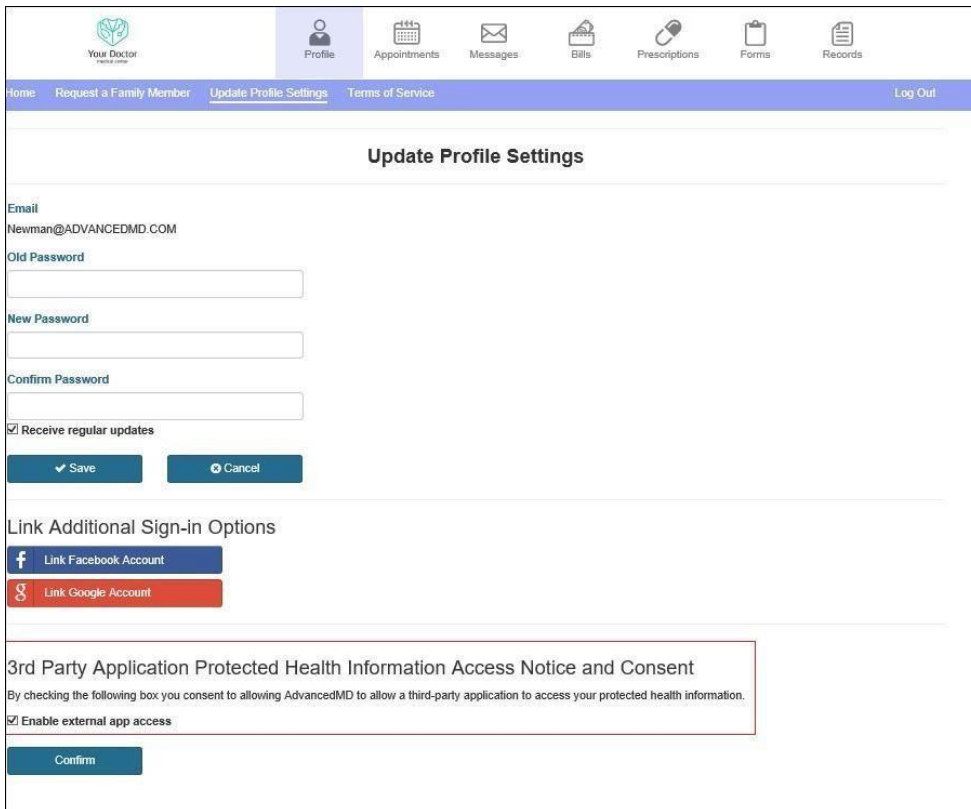
This guide is written for third party developers who are developing software applications to access patients' Protected Health Information (PHI). This guide provides a comprehensive step-by-step approach for users to understand authentication and methods to connect to the API, and to query patients' health data.

3. Pre-Requisite

API clients must support SSL (Secure Sockets Layer) communication. API will only be able to obtain the data of users whose patient have allowed the sharing of their health information through AdvancedEHR, AdvancedPM, and Patient Portal API. Patients who want to allow sharing of health information will be provided the API URL and credentials.

Once allowed from AdvancedEHR, patients can allow PHI option from the Patient Portal. Patients will not be able to select this option unless the provider has allowed PHI data sharing from AdvancedEHR. Once both these checks are allowed, patients will be able to log in to the API with Patient Portal credentials.

Patients will have to log in to the Patient Portal to give their consent, allowing AdvancedMD to allow a third-party application to access their protected health information.



The screenshot displays the 'Update Profile Settings' interface. At the top, there is a navigation bar with icons for 'Your Doctor', 'Profile', 'Appointments', 'Messages', 'Bills', 'Prescriptions', 'Forms', and 'Records'. Below this is a secondary navigation bar with links for 'Home', 'Request a Family Member', 'Update Profile Settings' (which is active), 'Terms of Service', and 'Log Out'. The main content area is titled 'Update Profile Settings' and contains the following elements:

- Email:** Newman@ADVANCEDMD.COM
- Old Password:** A text input field.
- New Password:** A text input field.
- Confirm Password:** A text input field.
- Receive regular updates:** A checked checkbox.
- Buttons:** 'Save' and 'Cancel' buttons.
- Link Additional Sign-in Options:** Two buttons: 'Link Facebook Account' and 'Link Google Account'.
- 3rd Party Application Protected Health Information Access Notice and Consent:** A section with a checked checkbox for 'Enable external app access' and a 'Confirm' button.

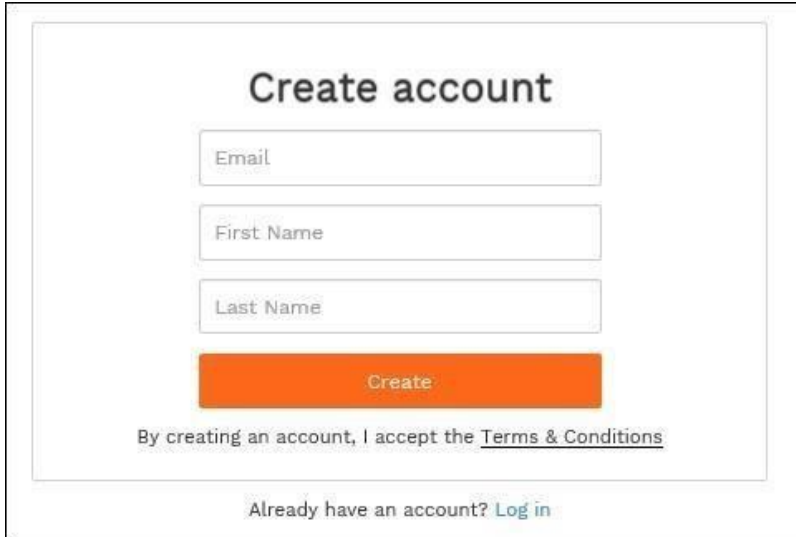
4. Software Requirement

There is no software requirement for implementation of API.

5. Create Account on API Portal

Developers can create an account on the AdvancedMD API portal by providing their email address, first and last name, and by accepting the Terms and Conditions. Detailed instruction will then be send to their email.

Note: The secure link expires in 10 minutes. If it expires, they will have to register again.



Create account

Email

First Name

Last Name

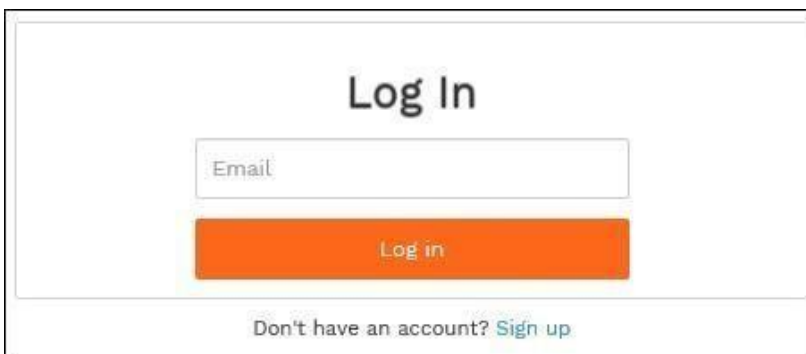
Create

By creating an account, I accept the [Terms & Conditions](#)

Already have an account? [Log in](#)

6. Existing User

Existing users can simply provide their email address in the Log In screen:



Log In

Email

Log in

Don't have an account? [Sign up](#)

Instructions to log in to the AdvancedMD API portal will be send to their registered email.

Note: The secure link expires in 10 minutes. If it expires, they will have to enter their email address again in the Log In screen.

7. Patient Authentication

User Credentials:

The username (email address) and password that the users would use to log in to the practice's Patient Portal, along with the practice's office key.

Method:

POST

Example:

```
{
  "username": "NEWMAN@ADVANCEDMD.COM",
  "password": "Password!1",
  "officekey": "970024"
}
```

Sample URL:

<https://advancedmd-preprod-pt-main.apigee.net/pt-api/authenticate> Successful Response:

```
{
  "patientdata": [
    {
      "patientid": 54542,
      "name": "NEWMAN,ALICE JONES",
      "address1": "1357",
      "address2": "AMBER DR",
      "city": "BEAVERTON",
      "state": "OR",
      "zipcode": "97006",
      "dateofbirth": "1970-05-01T00:00:00"
    }
  ],
  "token": "97002435Im0MMbkuWj8kOa9b0Hln1vTFEs8JPGI3IDrxFpZxLEZDTPL15VmPIC2YijgUfsukmMguBEu4O+kOtD//gkSzZtHZGVI2N6LbrkVTorxTrVGtBqTFgiYtWF4sDqaLAbc0z57GUgdvuwdk9tPS7qx7J2NCi4OeqcSEkxrHBCXw="
}
```

8. All Patient Data

To obtain all of the patient's data, a GET call would be made on the link given below. Along with the APIkey token, a bearer token will be used to fetch the patient details from AdvancedMD EHR.

Method:

GET

Input Parameter:

Fields	Data Type	Description
patientid	string	The patient's unique identifier ("patientid") returned by the authenticate API.
startDate	string	The beginning (m/d/yyyy) of the date range return data for.
endDate	string	The end (m/d/yyyy) of the date range return data for.

Sample URL:

<https://advancedmd-preprod-pt-main.apigee.net/pt-api/clinical/episodesummaries?patientid=54542&startDate=07%2F10%2F2016&endDate=07%2F15%2F2018>

Successful Response:

```
{
```

```
  "xml":      "<ClinicalDocument xmlns='urn:hl7-org:v3' xmlns:voc='urn:hl7-org:v3/voc' xmlns:xsi='http://www.w3.org/2001/XMLSchema-instance'><realmCode code='US' /><typeId root='2.16.840.1.113883.1.3' extension='POCD_HD000040' /><templateId root='2.16.840.1.113883.10.20.22.1.1' /><templateId root='2.16.840.1.113883.10.20.22.1.2' /><id root='2.16.840.1.113883.3.3733' extension='AMDS' /><code code='34133-9' codeSystem='2.16.840.1.113883.6.1' /><title>Summarization of Episode Note</title><effectiveTime value='20180718150213' /><confidentialityCode codeSystem='2.16.840.1.113883.5.25' code='N' /><languageCode code='en-US' /><recordTarget><patientRole><id root='2.16.840.1.113883.3.3733.2.1' extension='54542' /><id root='2.16.840.1.113883.3.3733.2.2' extension='6252' /><addr><streetAddressLine>AMBER DR</streetAddressLine><streetAddressLine>1357</streetAddressLine><city>BEAVERTON</city><state>OR</state><postalCode>97006</postalCode></addr><telecom use='HP' value='tel:+1-555-777-1234' /><telecom use='MC' value='tel:+1-555-723-1544' /><patient><name><family>NEWMAN</family><given>ALICE</given><given>JONES</given></name><administrativeGenderCode codeSystem='2.16.840.1.113883.5.1' code='F' /><birthTime xsi:type='TS' value='19700501' /><raceCode codeSystem='2.16.840.1.113883.6.238' code='2106-3' />
```

```

displayName="White" /><ethnicGroupCode codeSystem="2.16.840.1.113883.6.238" code="2186-5"
displayName="Not Hispanic or Latino" /><languageCommunication><languageCode code="en"
/><preferenceInd value="true"
/></languageCommunication></patient></patientRole></recordTarget><author><time
value="20180718150213" /><assignedAuthor><id root="2.16.840.1.113883.4.6" extension="1593746823"
/><addr><streetAddressLine>AMBR
DR</streetAddressLine><streetAddressLine>1234</streetAddressLine><city>BEAVERTON</cit
y><state>OR</state><postalCode>97006</postalCode></addr><telecom nullFlavor="UNK"
/><assignedPerson><name><family>DAVIS</family><given>ALBERT</given></name></assignedP
erson></assignedAuthor></author><custodian><assignedCustodian><representedCustodianOr
ganization><id
root="2.16.840.1.113883.4.6" extension="1593746823" /><name></name><telecom nullFlavor="UNK"
/><addr><streetAddressLine>3723 NORTH ELKRIDGE
DRIVE</streetAddressLine><city>CONCORD</city><state>NH</state><postalCode>85299</post
alCode></addr></representedCustodianOrganization></assignedCustodian></custodian><doc
umentationOf><serviceEvent classCode="PCPR"><effectiveTime><low nullFlavor="UNK"
/><high nullFlavor="UNK" /></effectiveTime><performer
typeCode="PRF"><assignedEntity><id root="2.16.840.1.113883.4.6" extension="1593746823"
/><addr><streetAddressLine>AMBR
DR</streetAddressLine><streetAddressLine>1234</streetAddressLine><city>BEAVERTON</cit
y><state>OR</state><postalCode>97006</postalCode></addr><telecom nullFlavor="UNK"
/><assignedPerson><name><family>DAVIS</family><given>ALBERT</given></name></assignedP
erson></assignedEntity></performer></serviceEvent></documentationOf><component><struc
turedBody><component><section><templateId root="2.16.840.1.113883.10.20.22.2.6" /><templateId
root="2.16.840.1.113883.10.20.22.2.6.1" /><code code="48765-2" codeSystem="2.16.840.1.113883.6.1"
/><title>ALLERGIES</title><text><table><thead><tr><td>Allergy
Name</td><td>Allergy
Date</td><td>Allergy
Status</td><td>Allergy
Reaction</td></tr></thead><tbody><tr><td><content
ID="allergy-material-
870">Ampicillin,
[RxNorm:
733]</content></td><td>06/11/2018</td><td>Active</td><td><content
ID="allergyreaction-
870">Hives</content></td></tr><tr><td><content
ID="allergy-material-
871">Penicillin
G,
[RxNorm:
7980]</content></td><td>06/11/2018</td><td>Active</td><td><content
ID="allergyreaction-
871">Hives</content></td></tr></tbody></table></text><entry><act classCode="ACT"
moodCode="EVN"><templateId root="2.16.840.1.113883.10.20.22.4.30" /><id root="00000000-00000000-
0000-
000000000870" /><code code="48765-2" codeSystem="2.16.840.1.113883.6.1"><originalText><reference
value="#allergymaterial-870" /></originalText

```

Note: Historic orders will be showing up under Plan of Treatment section

9. Patient - Demographic

To obtain patient demographics, a GET call would be made on the link given below. Along with the APIkey token, a bearer token will be used to fetch the patient demographics from AdvancedMD PM.

Method:

GET

Input Parameter:

Fields	Data Type	Description
patientid	string	The patient's unique identifier ("patientid") returned by the authenticate API.

Sample URL:

<https://advancedmd-preprod-pt-main.apigee.net/pt-api/demographics/patients/54542> Successful Response:

PM is down on MAIN, will provide the sample once it's fixed.

10. Patient - Allergies

To obtain patient allergies, a GET call would be made on the link given below. Along with the APIkey token, a bearer token will be used to fetch the patient allergies from AdvancedMD PM.

Method:

GET

Input Parameter:

Fields	Data Type	Description
patientid	string	The patient's unique identifier ("patientid") returned by the authenticate API.
startDate	string	The beginning (m/d/yyyy) of the date range of the return data for.
endDate	string	The end (m/d/yyyy) of the date range of the return data for.

Sample URL:

<https://advancedmd-preprod-pt-main.apigee.net/ptapi/clinical/allergies?patientid=54542&startDate=07%2F10%2F2016&endDate=07%2F10%2F2018>

Successful Response:

```
[
{
  "id": "870",
  "name": "Ampicillin",
  "status": "Active",
  "allergyDate": "20180611",
  "reaction": "Hives",
  "rxNormId": "733"
},
{
  "id": "871",
  "name": "Penicillin G",
  "status": "Active",
  "allergyDate": "20180611",
  "reaction": "Hives",
  "rxNormId": "7980"
}
```

11. Patient - Assessments

Method:

GET

Input Parameter:

Fields	Data Type	Description
--------	-----------	-------------

patientid	string	The patient's unique identifier ("patientid") returned by the authenticate API.
startDate	string	The beginning (m/d/yyyy) of the date range to return data for.
endDate	string	The end (m/d/yyyy) of the date range to return data for.

Sample URL:

<https://advancedmd-preprod-pt-main.apigee.net/pt-api/clinical/assessments?patientid=54542&startDate=07%2F10%2F2016&endDate=07%2F20%2F2018>

Successful Response:

```
[
{
  "date": "20180612",
  "assessment": "The patient was found to have fever and Dr Davis is suspecting Anemia based on the patient history. So Dr Davis asked the patient to closely monitor the temperature and blood pressure and get admitted to Community Health Hospitals if the fever does not subside within a day."
}
```

12. Patient - Goals

Method:

GET

Input Parameter:

Fields	Data Type	Description
patientid	string	The patient's unique identifier ("patientid") returned by the authenticate API.

startDate	string	The beginning (m/d/yyyy) of the date range returned data for.
endDate	string	The end (m/d/yyyy) of the date range returned data for.

Sample URL:

<https://advancedmd-preprod-pt-main.apigee.net/ptapi/clinical/goals?patientid=54542&startDate=07%2F10%2F2016&endDate=07%2F20%2F2018>

Successful Response:

```
[
{
  "goalText": "Get rid of intermittent fever that is occurring every few weeks\nNeed to gain more energy to do regular activities",
  "date": "20180612"
}
```

13. Patient – Health Concerns

Method:

GET

Input Parameter:

Fields	Data Type	Description
patientid	string	The patient's unique identifier ("patientid") returned by the authenticate API.
startDate	string	The beginning (m/d/yyyy) of the date range returned data for.
endDate	string	The end (m/d/yyyy) of the date range returned data for.

Sample URL:

<https://advancedmd-preprod-pt-main.apigee.net/pt-api/clinical/healthconcerns?patientid=54542&startDate=07%2F10%2F2016&endDate=07%2F18%2F2018>

Successful Response:

```
[
{
  "concern": "Chronic Sickness exhibited by patient",
  "date": "20180612"
}]
```

14. Patient – Immunization

Method:

GET

Input Parameter:

Fields	Data Type	Description
patientid	string	The patient's unique identifier ("patientid") returned by the authenticate API.
startDate	string	The beginning (m/d/yyyy) of the date range returned data for.
endDate	string	The end (m/d/yyyy) of the date range returned data for.

Sample URL:

<https://advancedmd-preprod-pt-main.apigee.net/ptapi/clinical/immunizations?patientid=54542&startDate=07%2F10%2F2016&endDate=07%2F18%2F2018>

Successful Response:

```
[
```

```
{
  "id": "798",
  "name": "Influenza Virus Vacc",
  "date": "20180521",
  "status": "0",
  "quantity": "1.00000",
  "unit": "ml",
  "lotNumber": "1",
  "cvxCode": "88",
  "details": ""
},
{
  "id": "800",
```

```
  "name": "Tetanus and diphter",
  "date": "20180521",
  "status": "0",
  "quantity": "1.00000",
  "unit": "mg",
  "lotNumber": "2",   "cvxCode": "106",
  "details": ""
```

```
},
{
  "id": "801",
  "name": "Influenza1",
  "date": "20180521",
  "status": "1",
  "quantity": "0.00000",
  "unit": "",
  "lotNumber": "",
  "cvxCode": "166",
  "details": ""
}
```


15. Patient – Implantable Devices

Method:

GET

Input Parameter:

Fields	Data Type	Description
patientid	string	The patient's unique identifier ("patientid") returned by the authenticate API.
startDate	string	The beginning (m/d/yyyy) of the date range returned data for.
endDate	string	The end (m/d/yyyy) of the date range returned data for.

Sample URL:

<https://advancedmd-preprod-pt-main.apigee.net/ptapi/clinical/immunizations?patientid=54542&startDate=07%2F10%2F2016&endDate=07%2F20%2F2018>

Successful Response:

```
[
{
  "id": "2",
  "deviceId": "(01)00643169007222(17)160128(21)blc200461h",
  "issuingAgency": "FDA",
  "siteName": "10 to 19 percent of body surface",
  "siteCode": "56244007",
  "deviceName": "Cardiac pacemaker",
  "deviceDescription": "Cardiac pacemaker",
  "manufacturer": "Genesys Orthopedics Systems LLC",
  "model": "1",
  "serialNumber": "BB2225",
  "lot": "BB1126", "isActive": "1",
}
```

```
"date": "20180406"
}
```

16. Patient – Medications

Method:

GET

Input Parameter:

Fields	Data Type	Description
patientid	string	The patient's unique identifier ("patientid") returned by the authenticate API.
startDate	string	The beginning (m/d/yyyy) of the date range to return data for.
endDate	string	The end (m/d/yyyy) of the date range to return data for.

Sample URL:

<https://advancedmd-preprod-pt-main.apigee.net/pt-api/clinical/immunizations?patientid=54542&startDate=07%2F10%2F2016&endDate=07%2F20%2F2018>

Successful Response:

```
[
{
  "rxNormId": "309090",
  "name": "ceftriaxone 100 gram recon soln",
  "instructions": "SIG: ceftriaxone 100 gram injection recon soln, 10 days, Dispense #2 Syringe, 0 Refills\r\nDirections: Take 0.10 injection syringe 2 times a day",
  "quantity": "2",
  "doseForm": "recon soln",
}
```

```
"date": "20180521",  
  
"expirationDate": "",  
"currentStatus": "Current",  
"type": "MEDADMIN"  
},  
{  
  "rxNormId": "209459",  
  "name": "Tylenol Extra Strength 500 mg tablet",  
  "instructions": "SIG: Tylenol Extra Strength 500 mg oral tablet, 10 days, Dispense #1  
Tablet, 0 Refills\r\nDirections: Take as needed",  
  "quantity": "1",  
  "doseForm": "tablet",  "date":  
"20180521",  
  "expirationDate": "",  
  "currentStatus": "Current",  
  "type": "MEDADMIN"
```

```

},
{
  "rxNormId": "731241",
  "name": "Aranesp (in polysorbate) 500 mcg/mL syringe",
  "instructions": "SIG: Aranesp (in polysorbate) 500 mcg/mL injection syringe, days, Dispense #1 Syringe, 0 Refills\r\nDirections: Injection once a week",
  "quantity": "1",
  "doseForm": "syringe",
  "date": "20180521",
  "expirationDate": "",
  "currentStatus": "Current",
  "type": "MEDADMIN"
}

```

17. Patient – Orders

Method:

GET

Input Parameter:

Fields	Data Type	Description
patientid	string	The patient's unique identifier ("patientid") returned by the authenticate API.
startDate	string	The beginning (m/d/yyyy) of the date range returned data for.
endDate	string	The end (m/d/yyyy) of the date range returned data for.

Sample URL:

<https://advancedmd-preprod-pt-main.apigee.net/ptapi/clinical/immunizations?patientid=54542&startDate=07%2F10%2F2016&endDate=07%2F20%2F2018>

Successful Response:

```
[
{
```

```

"date": "20180521",
"testDescription": "Unineanalysis macro(dipstick) panel",
"loincCode": "24357-6"
},
{
"date": "20180611",
"testDescription": "Unineanalysis macro(dipstick) panel",
"loincCode": "24357-6"
}
)

```

18. Patient – Plans

Method:

GET

Input Parameter:

Fields	Data Type	Description
patientid	string	The patient's unique identifier ("patientid") returned by the authenticate API.
startDate	string	The beginning (m/d/yyyy) of the date range return data for.
endDate	string	The end (m/d/yyyy) of the date range return data for.

Sample URL:

<https://advancedmd-preprod-pt-main.apigee.net/pt-api/clinical/immunizations?patientid=54542&startDate=07%2F10%2F2016&endDate=07%2F20%2F2018>

Successful Response:

```
[
{
  "date": "20180521",
  "key": "Planned Lab Test:",
  "plan": "Unineanalysis macro(dipstick) panel",
  "code": "24357-6"
},
{
  "date": "20180611",
  "key": "Planned Lab Test:",
  "plan": "Unineanalysis macro(dipstick) panel",
  "code": "24357-6"
},
{
  "date": "20180612",
  "key": "Care Plan:",
  "plan": "Get an EKG done on 6/23/2015\nGet a Chest X-ray done on 6/23/2015 showing the Lower Respiratory Tract Structure\nTake Clindamycin 300 mg three times a day as nee ded if pain does not subside\nSchedule follow on visit with Neighborhood Physicians Prac tice on 7/1/2015",
  "code": ""
},
{
  "date": "20180612",
  "key": "Assigned Care Team:",
  "plan": "Dr Albert Davis\nTracy Davis",
  "code": ""
},
{
  "date": "20180612",
```

```
"key": "Future Scheduled Appts:",
"plan": "No future dated appt scheduled.",
"code": ""
}
```

19. Patient – Care Team

Care Team detail is included in Plans Section. See Section 18 for more details. Sample Response

```
{
  "date": "20180612", |
  "key": "Assigned Care Team:",
  "plan": "Dr Albert Davis\nTracy Davis",
  "code": ""
},
```

20. Patient – Procedure

Method: GET

Input Parameter:

Fields	Data Type	Description
patientid	string	The patient's unique identifier ("patientid") returned by the authenticate API.
startDate	string	The beginning (m/d/yyyy) of the date range return data for.
endDate	string	The end (m/d/yyyy) of the date range return data for.

Sample URL:

<https://advancedmd-preprod-pt-main.apigee.net/ptapi/clinical/procedures?patientid=54542&startDate=07%2F10%2F2016&endDate=07%2F20%2F2018>

Successful Response:

```
[
{
  "date": "20180521",
  "code": "94640",
  "type": "act",
  "description": "AIRWAY INHALATION TREATMENT"
},
{
  "date": "20180521",
  "code": "33216",
  "type": "procedure",
  "description": "INSERT 1 ELECTRODE PM-DEFIB"
}
]
```

21. Patient – Providers

Method:

GET

Input Parameter:

Fields	Data Type	Description
patientid	string	The patient’s unique identifier (“patientid”) returned by the authenticate API.
startDate	string	The beginning (m/d/yyyy) of the date range return data for.
endDate	string	The end (m/d/yyyy) of the date range return data for.

Sample URL:

<https://advancedmd-preprod-pt-main.apigee.net/ptapi/clinical/providers?patientid=54542&startDate=07%2F10%2F2016&endDate=07%2F20%2F2018>

Successful Response:

```
[
{
  "npiNumber": "1593746823",
  "address1": "1234",
  "address2": "AMBR DR",
  "city": "BEAVERTON",
  "state": "OR",
  "zip": "97006",
  "country": "US",
  "title": "",
  "lastName": "DAVIS",
  "firstName": "ALBERT",
  "middleName": ""
}
```

22. Patient – Results

Method:

GET

Input Parameter:

Fields	Data Type	Description
patientid	string	The patient's unique identifier ("patientid") returned by the authenticate API.
startDate	string	The beginning (m/d/yyyy) of the date range return data for.
endDate	string	The end (m/d/yyyy) of the date range return data for.

Sample URL:

<https://advancedmd-preprod-pt-main.apigee.net/ptapi/clinical/results?patientid=54542&startDate=07%2F10%2F2016&endDate=07%2F20%2F2018>

Successful Response:

```
{
  "code": "urine test 3",
  "name": "urine test 3",
  "date": "20180611",
  "results": [
    {
      "code": "5811-5",
      "name": "Specific gravity of Urine by Test strip",
      "value": "1.015",
      "unit": null,
      "interpretationCode": null,
      "range": "1.005-1.030",
      "rangeFrom": "1.005",
      "rangeTo": "1.030"
    }
  ]
}
```

23. Patient – Smoking Status

Method: GET

Input Parameter:

Fields	Data Type	Description
patientid	string	The patient's unique identifier ("patientid") returned by the authenticate API.
startDate	string	The beginning (m/d/yyyy) of the data return data for.

endDate	string	The end (m/d/yyyy) of the date range data for.
---------	--------	--

Sample URL:

<https://advancedmd-preprod-pt-main.apigee.net/ptapi/clinical/smokingstatus?patientid=54542&startDate=07%2F10%2F2017&endDate=07%2F20%2F2018>

Successful Response:

```
{
  "value": "449868002",
  "description": "Current everyday smoker",
  "date": "20180612"
}
```

]

24. Patient – Vital Sign

Method:

GET

Input Parameter:

Fields	Data Type	Description
patientid	string	The patient's unique identifier ("patientid") returned by the authenticate API.
startDate	string	The beginning (m/d/yyyy) of the date range return data for.
endDate	string	The end (m/d/yyyy) of the date range data for.

Sample URL:

<https://advancedmd-preprod-pt-main.apigee.net/ptapi/clinical/vitalsigns?patientid=54542&startDate=07%2F10%2F2017&endDate=07%2F20%2F2018>

Successful Response:

```
[
{
```

```
"date": "20180612",
  "measurements": [
```

```
{
```

```
  "name": "Height",
```

```
    "value": "69.685",
```

```
    "metricValue": "177"
```

```
  },
```

```
  {
```

```
    "name": "Weight",
```

```
    "value": "194",
```

```
    "metricValue": "88"
```

```
  },
```

```
  {
```

```
    "name": "Body Temperature",
```

```
    "value": "100.4",
```

```
    "metricValue": "38"
```

```
  },
```



```
{
  "name": "Heart Rate",
  "value": "80",
  "metricValue": "80"
},
{
  "name": "Respiratory Rate",
  "value": "18",
  "metricValue": "18"
},
{
  "name": "Inhaled Oxygen Concentration",
  "value": "36",
  "metricValue": "36"
},
{
  "name": "BP Systolic",
  "value": "145",
  "metricValue": "145"
},
{
  "name": "BP Diastolic",
  "value": "88",
  "metricValue": "88"
},
{
  "name": "Pulse Oximetry",
  "value": "95",
  "metricValue": "95"
}
]
```

25. Error Handling

Error Codes	Description	Resolution
401	- Unauthorized Access.	<ul style="list-style-type: none"> Invalid API key or bearer token
429	- Too many requests: More details are provided in the response.	<ul style="list-style-type: none"> Too many requests: Please wait and try your request again in about a minute
403	- Error: Forbidden	<ul style="list-style-type: none"> Make sure patient has given the consent allowing AdvancedMD to allow a thirdparty application to access your protected health information