

NOW / NEXT



# Introduction to SMART on FHIR

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*Senior Software Engineer*

# Agenda

- What is SMART on FHIR?
- SMART app examples
- SMART on FHIR app launch sequence
- SMART community
- Cerner Developer Ecosystem & code Console
- Cerner supported launch points
- Cerner SMART on FHIR tutorial app
- Cerner SMART on FHIR community
- Questions

# **Substitutable Medical Applications and Reusable Technology**

# Fast Healthcare Interoperability Resources

# SMART Standards



Provides standards to build **healthcare applications**



Applications can **run against any vendor** implementing SMART



**Open source** (licensed under Apache License 2)



Generally **web apps** (though **native apps** are supported too)

# SMART Platform Benefits



Defines how apps are launched



Authorization (OAuth 2)



Authentication (OpenID Connect)



Context sharing between EHR and app



Discover FHIR service endpoint

# SMART Platform Benefits



Defines how apps are launched



Authorization (OAuth 2)



Authentication (OpenID Connect)

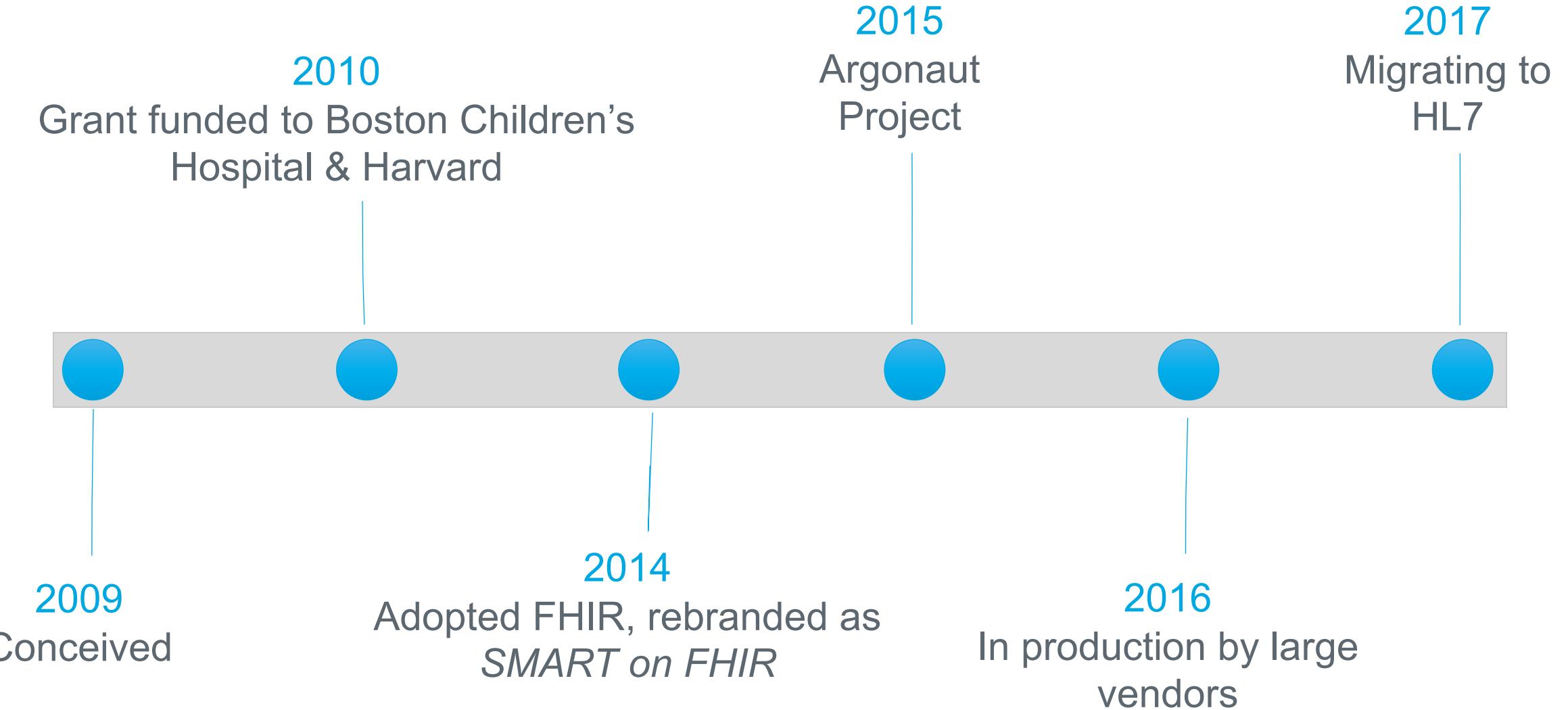


Context sharing between EHR and app



Discover FHIR service endpoint

# SMART Trajectory



# Example Apps

SeamlessMD

HEART Pathway+

 Wellsheet  
doctor-friendly by design

  
**ACT.md**  
Act together.  
Make health happen.™

 Boston  
Children's  
Hospital

 SMART®

 RxCheck™

 ePreop™

  
**ADiE**  
ADVANCE DIRECTIVE iNFORMATION EXCHANGE

 Yosi

 DoseMe

 Cerner

  
healthwise®  
for every health decision®

 juxly™

 carevive

 HANDTEVY  
Pediatric Emergency Standards

 juxly™

 KRAMES  
ON FHIR®

 fdb  
First Databank

  
**EvidenceCare**  
Our Evidence. Your Care.

 HealthDecision™

 MedActionPlan® PRO

  
Family Care Path

 THE SYSTEM®

 vincari

 UpToDate® Pathways

 Qlik

Healthcare

 patient  
education  
genius

 KYRUUS

  
**youScript**  
Safer Medication Management Begins With You

  
**Stericycle®**  
Communication Solutions

Cerner App Gallery : <https://code.cerner.com/apps>

# SMART Cardiac Risk App by Cerner

SMART Cardiac Risk

ASCVD Risk Calculator

Menu - All 

Full screen Print 0 minutes ago

Sex: Male  Total Cholesterol (mg/dL): 140 Diabetes: No

Age: 37 HDL - Cholesterol (mg/dL): 60 Current Smoking: No

Race:  White  African American  Other Systolic Blood Pressure: 90 Treatment for Hypertension: No

# SMART Cardiac Risk App by Cerner



# Juxly Timeline

SMART Juxly Timeline

Timeline

Filter

5/22/2019 4:49 am hydrocodone-acetaminophen (hydrocodone-acetaminophen 5mg-325mg oral tablet) 1 tab, Oral, Once Dubois MD, Penny

9/20/2018 3:00 pm allopurinol (allopurinol 300 mg oral tablet) 2 tabs, Oral, Daily, 60 tab, 0 Refill(s) Zmek MD, Perry

9/20/2018 2:59 pm carvedilol (carvedilol 12.5 mg oral tablet) 12.5 mg = 1 tab, Oral, BID, 60 tab, 0 Refill(s) Zmek MD, Perry

9/20/2018 2:59 pm furosemide (furosemide 20 mg oral tablet) 20 mg = 1 tab, Oral, Once a Day (at bedtime), 90 tab, 0 Refill(s) Zmek MD, Perry

9/20/2018 2:58 pm pravastatin (Pravachol 20 mg oral tablet) 20 mg = 1 tab, Oral, Once a Day (at bedtime), 90 tab, 0 Refill(s) Zmek MD, Perry

Allergies

- amoxicillin
- Adhesive Bandage
- penicillins Dec 31, 1969

Medications

- hydrocodone-acetaminophen (hydrocodone-acetaminophen 5mg-325mg oral tablet) 1 tab, Oral, Once May 22, 2019
- allopurinol (allopurinol 300 mg oral tablet) 2 tabs, Oral, Daily, 60 tab, 0 Refill(s) (intended) September 20, 2018
- carvedilol (carvedilol 12.5 mg oral tablet) 12.5 mg = 1 tab, Oral, BID, 60 tab, 0 Refill(s) (intended) September 20, 2018
- furosemide (furosemide 20 mg oral tablet) 20 mg = 1 tab, Oral, Once a Day (at bedtime), 90 tab, 0 Refill(s) (intended) September 20, 2018
- pravastatin (Pravachol 20 mg oral tablet) 20 mg = 1 tab, Oral, Once a Day (at bedtime), 90 tab, 0 Refill(s) (intended) September 20, 2018
- tacrolimus (tacrolimus 0.5 mg oral capsule) 0.5 mg = 1 cap, Oral, Daily, 180 cap, 0 Refill(s) October 2, 2017
- aspirin (aspirin 81 mg oral tablet) 81 mg = 1 tab, Oral, Daily, 0 Refill(s) October 2, 2017
- allopurinol (allopurinol 300 mg oral tablet) 300 mg = 1 tab, Oral, Daily, 0 Refill(s) May 22, 2017

Surgical History

Loaded Encounters (9) Meds (20) Labs (4) Vitals (0) Procedures (0) Diagnoses (12)

powered by  Juxly

# Medication by First Databank

SMART Medication

Finish [Click once to save to Discharge Summary] - Last saved: 10/3/2019 11:30 AM

medication® SQMAWFXD

MedDemo | Feedback University Medical ▾

Add Med Print PMI English Regular

Medicine	Structured SIG	Links	Category	Cal	PMI
allopurinol (allopurinol 300 mg oral tablet)	2 tablets by mouth (given by mouth) every day. refills: 0.	🔗	Daily	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
allopurinol (allopurinol 300 mg oral tablet)	1 pill once daily	🔗	Daily	<input checked="" type="checkbox"/>	<input type="checkbox"/>
aspirin (aspirin 81 mg oral tablet)	1 pill once daily	🔗	Daily	<input checked="" type="checkbox"/>	<input type="checkbox"/>
carvedilol (carvedilol 12.5 mg oral tablet)	1 pill twice daily	🔗	Daily	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
furosemide (furosemide 20 mg oral tablet)	1 pill once daily [bedtime]	🔗	Daily	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
pravastatin (Pravachol 20 mg oral tablet)	1 pill once daily [bedtime]	🔗	Daily	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
tacrolimus (tacrolimus 0.5 mg oral capsule)	1 pill once daily	🔗	Daily	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Blue SIG: SIG not recognized

Blue Drug: Medicine not recognized

Structure unrecognized SIG

Edit SIG instructions

View PMI (Personal Med Instructions)

PMI unavailable

View demonstration

View FDA Med Guide

# Medication by First Databank

Print header

Print Mandarin (Simplified) Regular

## Carvedilol Tablet 25mg

### 用法用量（服药说明）

口服，每天两次。  
Take the medicine by mouth twice a day.

每次服一粒/片。  
Take one (1) pill each time.

重要：以下是给您的具体说明。若该说明与您收到的其他信息不同，包括以下说明，请洽询您的处方医生或药师。

#### 服用说明

吞服，请勿压碎或嚼碎药片/丸以后吞服。  
此药须跟食物同服。  
很重要的是要请您在每天的同一时间服药，这样药效最佳。  
请在室温下储存此药，避热及避免阳光直射。  
按时服用此药的每次剂量极其重要，就算感觉很好，也请准时服药。  
如果您忘记了而错过（漏服）了一次剂量，请在想起来以后马上补服。如果想起来的时间已经差不多到了下一剂量的服药时间，请跳过（忽略）漏服的剂量。请继续按正常的服药时间安排服药。此药不可两剂（两次剂量）同时服用。  
请告知您的医生、护士或药剂师您服用的所有药物。包括处方药和非处方药。同样告知他们您服用的任何维生素、中草药或其他保健食品。  
如果您患有糖尿病，此药可能会隐藏某些低血糖的症状，比如心跳过速。请定期检测您的血糖水平并留意其它低血糖的症状。  
低血糖的症状可能包括恶心、颤动、出汗、皮肤冰冷、心率过快、饥饿或易怒。  
请勿突然停止服用此药。停止之前，请咨询您的医生。

#### 注意事项

如果您曾对该药物过敏，请告知您的医生和药剂师。症状可能包括呼吸困难、皮疹、瘙痒、肿胀或者严重头晕。  
请遵医嘱用药，不要过量用药。  
此药可影响、削弱您的灵敏度或快速反应的能力。在不明白此药对您身体的影响前，请勿驾驶机动车（开车）或操作机器设备。  
如果您已经有孕在身（怀孕了）、或者准备受孕、或者是在母乳喂养期间，请告诉医生或者药剂师。  
如果此药物与您服用的其他药物产生反应，请咨询您的药剂师。务必告知他们您服用的所有药物。  
在医生或牙医进行治疗之前，请告知他们您正在服用此药。

# KRAMES Patient Education by StayWell

SMART Krames Patient Education

Full screen Print 1 minutes ago

KRAMES Patient Education

IVAN SMOLIN, 73 4

Conditions | 24 Medications | 7 Procedures | 0

Search

Bilateral primary oste... M17.0 Chronic sinusitis, uns... J32.9 Enlarged prostate wit... N40.0 Type 1 diabetes melli... E10.42 Type 2 diabetes melli... E11.51 Unlabeled

Images ON

21 titles

Filter and sort

Sort by:

- All Relevant
- Newest Relevant
- Favorites
- Name
- Content Type

Gender:

- All
- Male
- Female

Age:

- All
- Infant (0-11 mo)
- Child (1-12 yrs)
- Teen (12-18 yrs)
- Adult (18-65 yrs)
- Senior (65+ yrs)

Content Type:

- All
- Adult
- Cancer Knowledgebase
- Diseases and Conditions
- Lab Tests
- Alchemy Drug Sheets
- Exit-Writer
- HealthSheets
- Tests and Procedures
- Diseases and Conditions - Pediatric
- Pediatric
- Tests and Procedures - Pediatric

HealthSheets Living with Osteoarthritis Printed 05/21/2019 07:55 	HealthSheets Osteoarthritis Medicine  	Exit-Writer Adult Osteoarthritis Printed 05/20/2019 08:02 	Adult Osteoarthritis  	HealthSheets Osteoarthritis: Common Sites  
HealthSheets Treating Tendonitis of the Foot  	HealthSheets Osteoarthritis: Coping with Pain  	HealthSheets Osteoarthritis: Tips for Daily Living  	HealthSheets Osteoarthritis: Injections and Surgery  	HealthSheets How Your Knee Works  

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SMART Healthwise

Suggestions New Search A - Z Categories Favorites Patient Response

Results based on patient data

Age: 73 years 7 months Gender: Male

2019-09-04

**Sinusitis (disorder)**

- Sinusitis [Video]
- Chronic Sinusitis: Care Instructions**
- Sinusitis: Care Instructions
- Sinusitis: Should I Take Antibiotics? [Shared Decision-Making]
- Saline Nasal Washes: Care Instructions
- » Show 2 more results for Sinusitis (disorder)

2019-01-31

**Primary malignant neoplasm of lung (disorder)**

- Lung Cancer: Care Instructions
- Lung Cancer: Should I Have Screening? [Shared Decision-Making]
- Mediastinoscopy: Before Your Procedure
- Mediastinoscopy: What to Expect at Home
- Learning About Lung Cancer Screening
- » Show 7 more results for Primary malignant neoplasm of lung (disorder)

2018-12-06

**Diabetic neuropathy (disorder)**

- Type 2 Diabetes [Video]

Preview and Print Add Note

Print Size:  M  L  XL

Chronic Sinusitis: Care Instructions

Language: English

Sinuses

© Healthwise, Incorporated

Your Care Instructions

Sinusitis is an infection of the lining of the sinus cavities in your head. It causes pain and pressure in your head and face. Sinusitis can be short-term (acute) or long-term (chronic). Chronic sinusitis lasts 12 weeks or longer. It is often caused by a bacterial or fungal infection. Other things, such as allergies, may also be involved.

Chronic sinusitis may be hard to treat. It can lead to permanent changes in the mucous membranes that line the sinuses. It may make future sinus infections more likely.

The infection may take some time to treat. Antibiotics are usually used if the infection is caused by bacteria. You may also need to use a corticosteroid nasal spray. If the infection is not cured after you try two or more different antibiotics, you may want to talk with your doctor about surgery or allergy testing.

If the sinusitis is caused by a fungal infection, you may need to take antifungals or other medicines. You may also need surgery.

**Follow-up care is a key part of your treatment and safety.** Be sure to make and go to all appointments, and call your doctor if you are having problems. It's also a good idea to know your test results and keep a list of the medicines you take.

How can you care for yourself at home?

Text size: A A A

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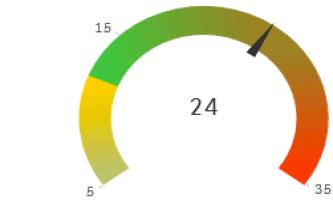
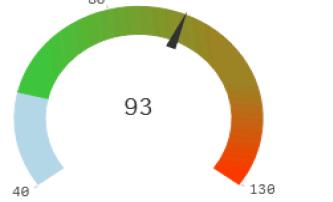
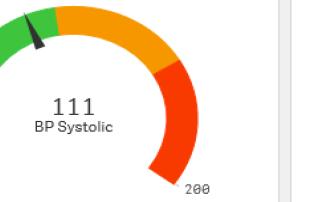
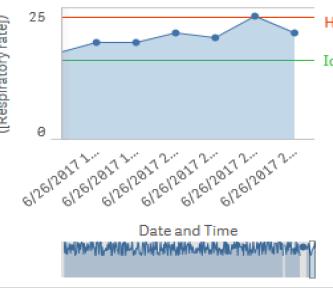
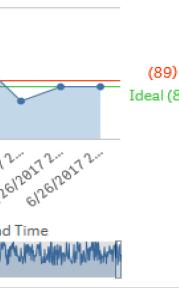
# Qlik SMART Analytics Adapter

CernerQlik\_Adapter

Patient Encounter Analysis 3881400

## Patient Encounter Analysis

Qlik

Patient LACE Score <b>12</b>	Respiration 	Pulse 	BP Systolic 	BP Diastolic 
BMI <b>19.6</b>				
Customer Encounters <b>16</b>	(Respiratory rate) 	Pulse 	avg(BP Systolic) 	BP Diastolic 
Press Ganey Score <b>24</b>				
Star Rating for Physician <b>4</b>	Care Provider Abate, Gale Abbate, Cosmo Abbots, Micky Abbey, Gary Abbie, Gualterio Abbis, Sheffield Abbison, Benedicto	Patient Smolin, Ivan Romanovich Aarika Steptoe Aaron Keer Ab Espy Abbe Cheetham Abbey Dovidian Abbie Ambrosoni	Patient Encounter ID 3881400	HRRP Conditions COPD
All Encounters				

# DoseMeRx

SMART DoseMe

Full screen Print 6 minutes ago

 DoseMeRx

COURSES HELP

### Vancomycin (Adult) Course History

Historical Plot   Doses   Lab Results   Patient Data

<b>MRN:</b> 200630	<b>Most Recent Dose:</b> No doses delivered
<b>Name:</b> Mead, Daniel (M)	<b>Most Recent Response:</b> No concentration levels sampled
<b>DOB:</b> Jul 15 1980 (39 yo)	<b>Drug:</b> Vancomycin (Adult)
<b>Weight:</b> 70 kg	

**Indication** Non-severe Infection

**Next Dose At** Oct 3, 2019 13:24

Next dose should be between Oct 3, 13:24 and Oct 17, 13:24

**Calculate**

**Population Dose**

1500 mg over 2.5 hours twice daily for 3 days

**Target:** AUC24: 450 mg.h/L

**Predicted:** AUC24: 448.81 mg.h/L

**Guideline Dose (Non-severe Infection)**

1750 mg over 3 hours once, then 1250 mg over 2.5 hours twice daily for 3 doses

**Label Dose**

1000 mg over 2 hours twice daily for one day

# MyLegacy Disease Risk Reference



## MyLegacy Disease Risk Reference

Patient Name: Jake Boxer

MRN: 3772357

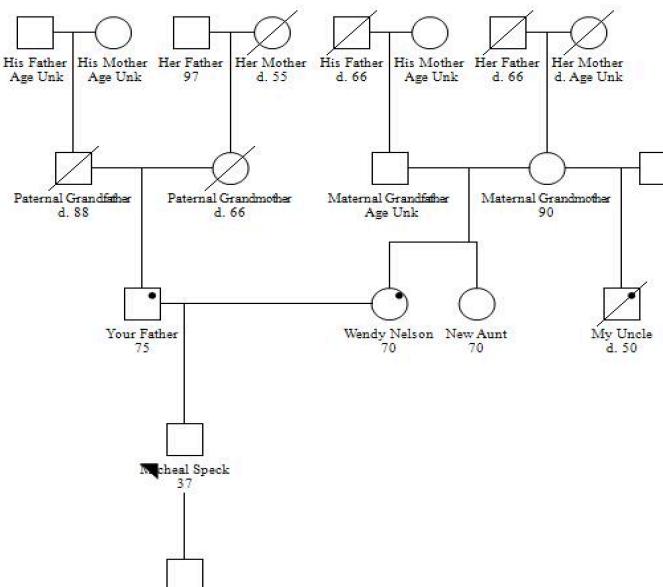
Date Submitted: 09/30/2017

### Pedigree

#### Abdominal Aortic Aneurysm

7/19/2017

- Abdominal Aortic Aneurysm
- Aneurysm, Cerebral
- Aneurysm, Other
- Aneurysm, Peripheral
- Aneurysm, Thoracic
- Carotid Artery Disease
- Connective Tissue Disorder
- Coronary Heart Disease
- Heart Attack
- Heart Failure
- Ischemic Stroke
- Peripheral Artery Disease



# SMART embedded launch workflow



## SMART App One-Time Setup

- SMART Apps must be published at Transport Layer Security (TLS)-protected URL (https)
- Register a launch URL with the EHR
- Register an authorization redirect URL with EHR
- Register the required scopes with the EHR



Launch SMART app  
with FHIR endpoint +  
opaque launch id

#### EHR

Launches SMART app via the app's  
launch URL

Captures the context (e.g. patient id,  
encounter id) and associate this data with  
an opaque launch id

The FHIR endpoint URL and an opaque  
launch id are given as parameters





Launch SMART app  
with FHIR endpoint +  
opaque launch id

Calls FHIR /metadata service

### SMART App

Calls FHIR conformance  
resource (GET /metadata) to  
obtain the OAuth endpoint



Launch SMART app  
with FHIR endpoint +  
opaque launch id

Calls FHIR /metadata service

Returns Conformance with OAuth endpoint

### FHIR Service

Returns the Conformance  
document containing the  
OAuth endpoint



Launch SMART app  
with FHIR endpoint +  
opaque launch id

Calls FHIR /metadata service

Returns Conformance with OAuth endpoint

Asks for authorization

### SMART App

Asks the OAuth provider for authorization to run as well as the desired context (e.g. patient, encounter) via the launch scope

App requests scopes (e.g. launch openid profile patient/Patient.read patient/Observations.read) that it needs to operate



Launch SMART app  
with FHIR endpoint +  
opaque launch id

Calls FHIR /metadata service

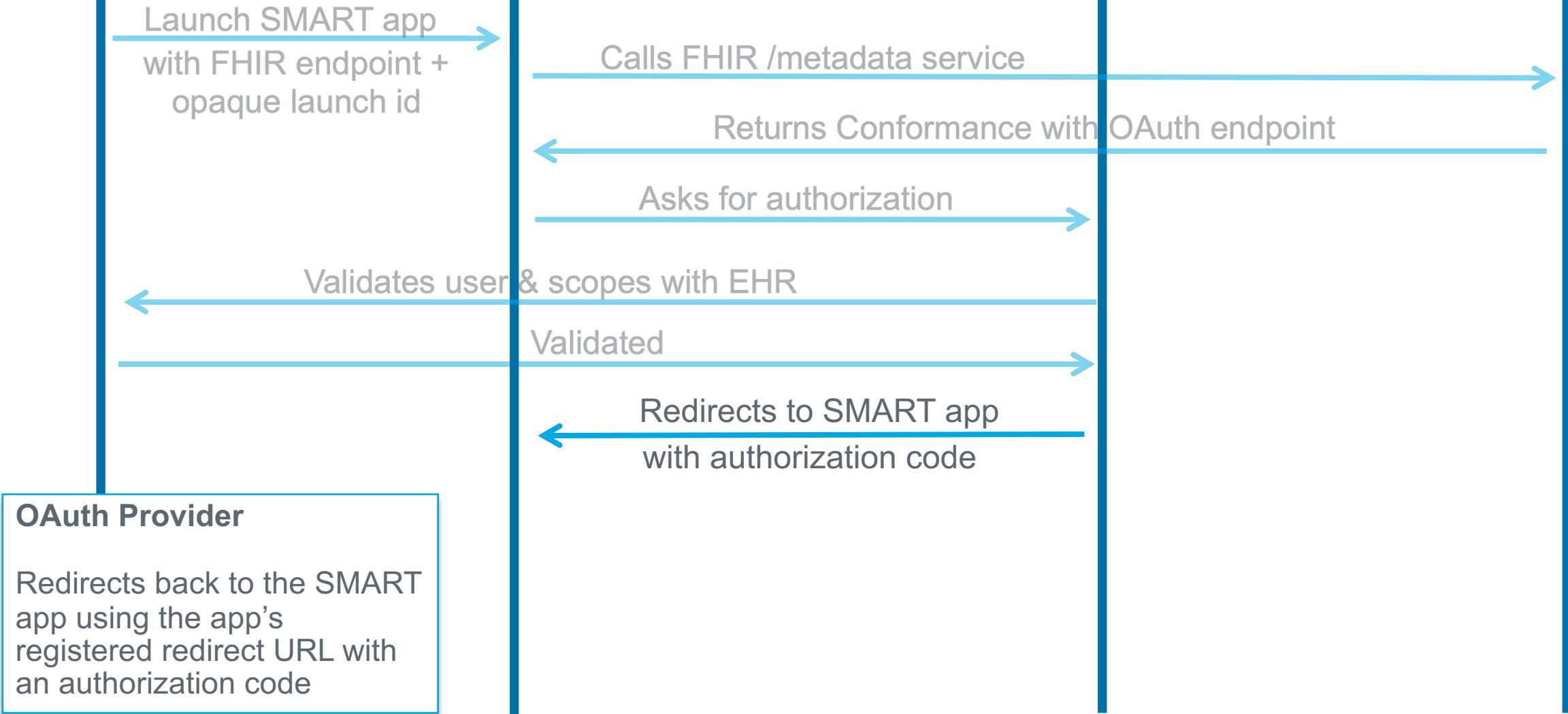
Returns Conformance with OAuth endpoint

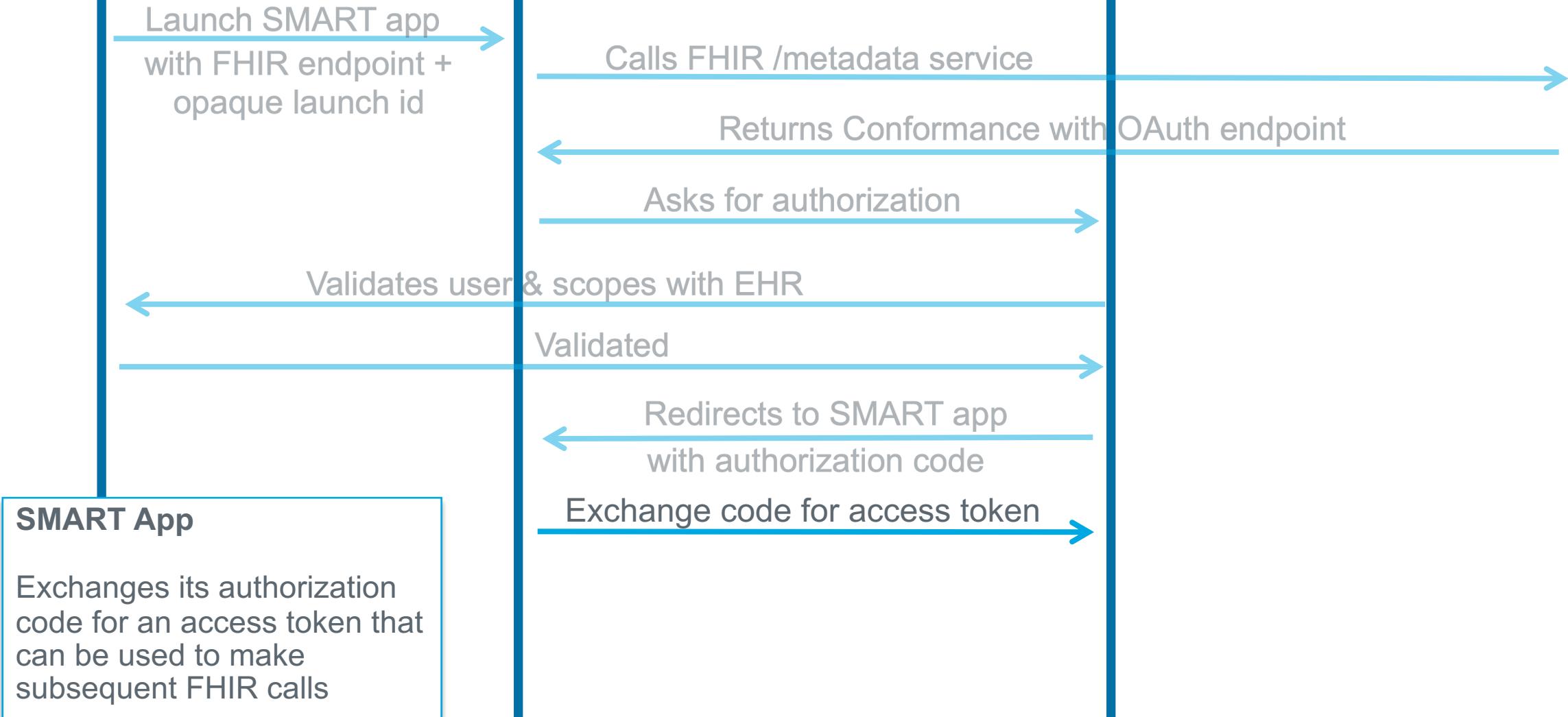
Asks for authorization

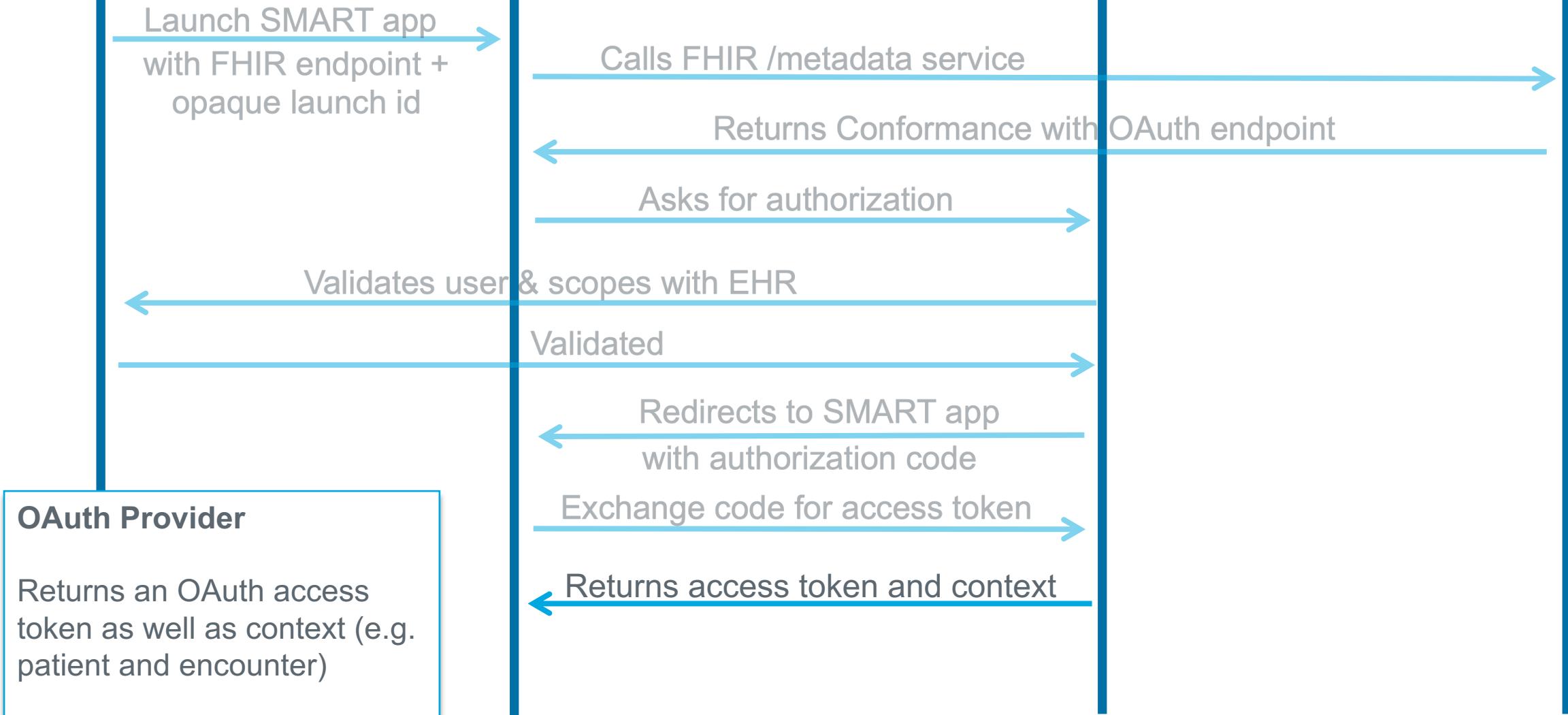
Validates user & scopes with EHR

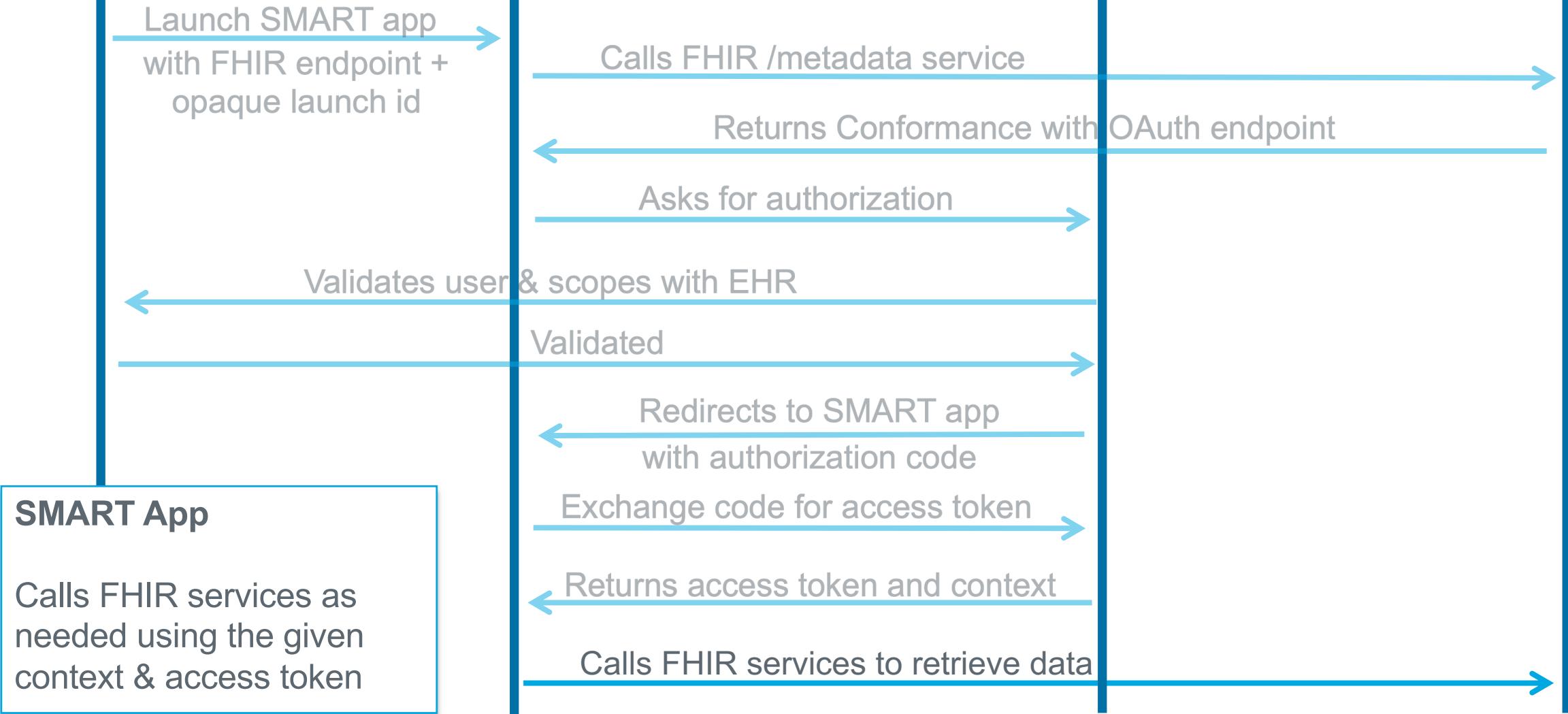
### OAuth Provider

Contacts the underlying EHR  
to validate the authorization  
request from the SMART app











Launch SMART app  
with FHIR endpoint +  
opaque launch id

Calls FHIR /metadata service

Returns Conformance with OAuth endpoint

Asks for authorization

Validates user & scopes with EHR

Validated

Redirects to SMART app  
with authorization code

Exchange code for access token

Returns access token and context

Calls FHIR services to retrieve data

# SMART Community



[smarthealthit.org](http://smarthealthit.org)



[docs.smarthealthit.org](http://docs.smarthealthit.org)



[gallery.smarthealthit.org](http://gallery.smarthealthit.org)



[chat.fhir.org](http://chat.fhir.org) | [bit.ly/smart-google-group](https://bit.ly/smart-google-group)

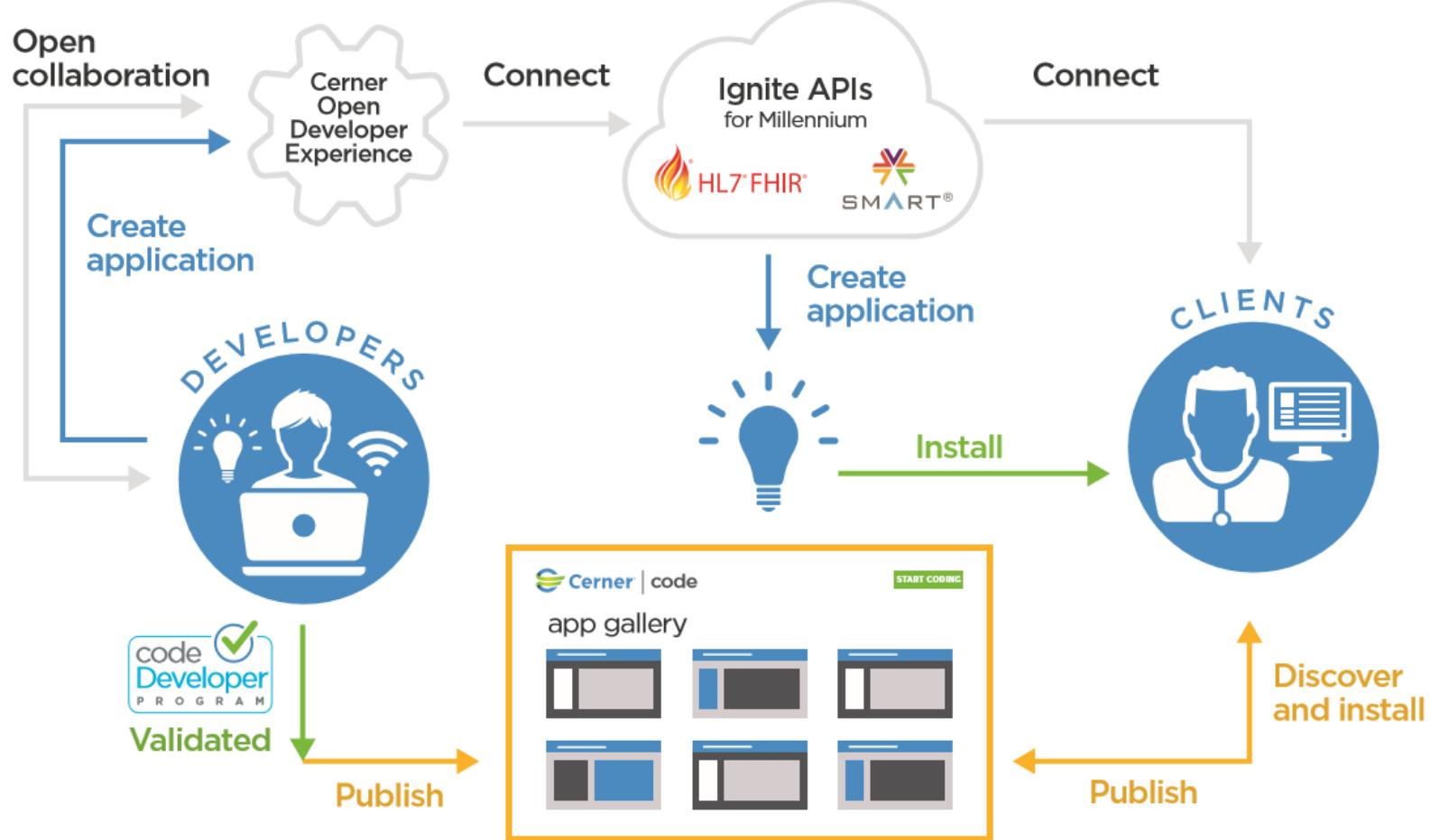


[github.com/smart-on-fhir](https://github.com/smart-on-fhir)

# Developer ecosystem

# Developer ecosystem

Cerner | code



# code Console

NOW/NEXT

# code Console

## CODE

The *Cerner Open Developer Experience* provides a developer everything they need to develop and test their applications and services against Cerner's open platforms.

Log in using **CernerCare**

Email Address

Password

Remember Me

**Log In**

[Forgot your password?](#)  
[Mobile Website](#)

Don't have an account?

**Create an account >>**

[bit.ly/cerner-code-console](http://bit.ly/cerner-code-console)

# code Console > My Apps

My Apps | kol.kheang@cerner.com | Logout

My Apps + New App



[GitHub SMART App Tutorial](#)

App Type: provider  
FHIR Spec: dstu2



[localhost - App Validator](#)

App Type: provider  
FHIR Spec: dstu2



[App Validator DSTU2](#)

App Type: provider  
FHIR Spec: dstu2



[SMART without FHIR - ABL Testing](#)

App Type: provider  
FHIR Spec: dstu2

# code Console > App Registration

My Apps		kol.kheang@cerner.com   Logout
---------	--	--------------------------------

## App Registration

\* Indicates a required field.

**\* App Name**

**SMART Launch URI**

  
https://

The URI to initiate the launch of your SMART app

**\* Redirect URI**

  
https://

The callback URI for the OAuth2 server to redirect to your SMART App

**\* App Type**

Provider

Patient

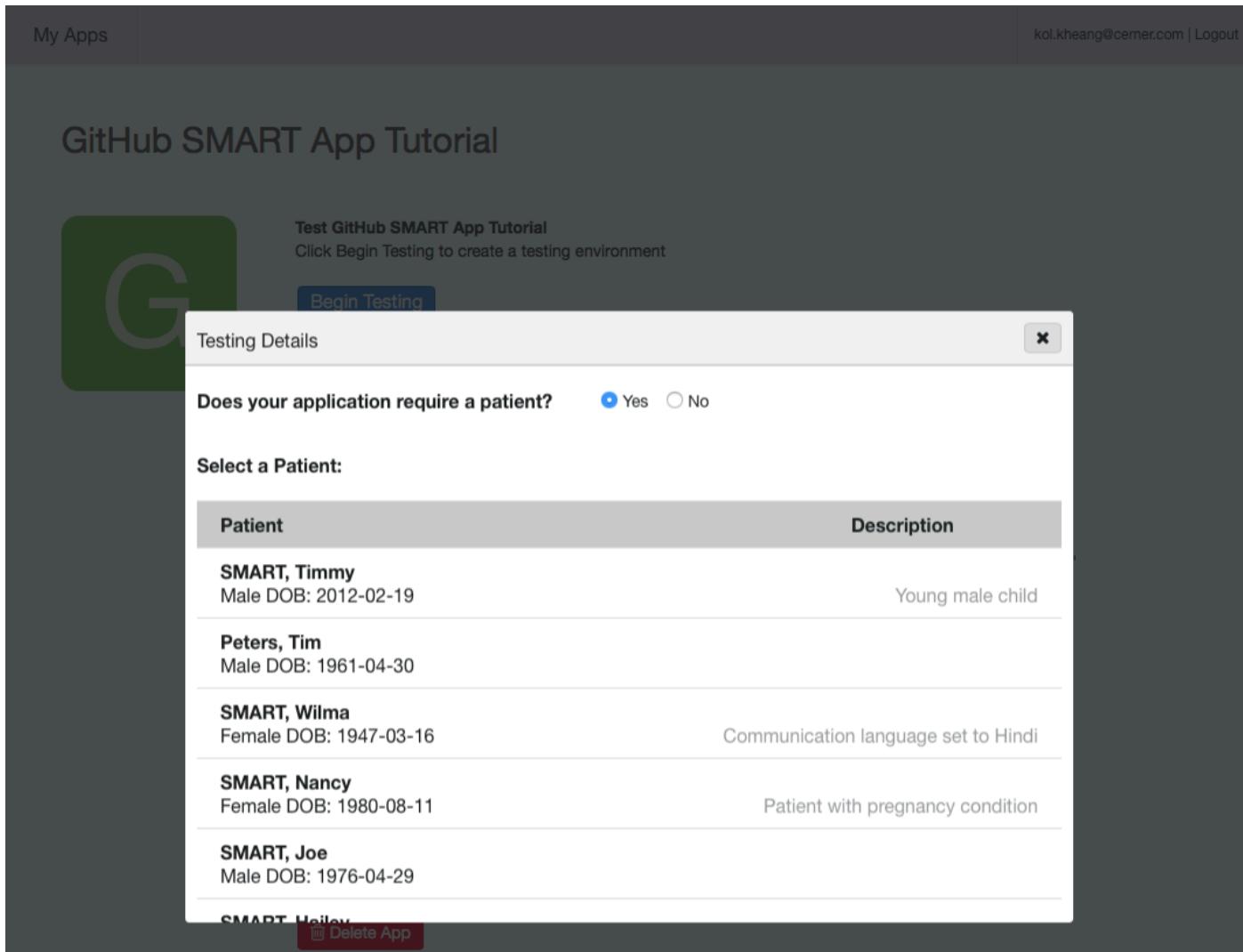
System

**\* FHIR Spec**

The FHIR version your SMART App will consume

dstu2

# code Console > Launching App



# Launch Points

# SMART App > Organizer View

The screenshot shows the SMART App Organizer View interface. At the top, there is a header bar with the SeamlessMD logo, navigation icons, and user information (pwmd1 EMR, Cerner Test - Admin). Below the header, there are tabs for Reports and Surveys, with Reports selected. Under the Reports tab, there are sub-tabs: Activity (selected), Length of Stay, PROs, Compliance, and Response.

In the main content area, there is a section titled "Select a care plan" with a dropdown menu set to "General Test Care Plan". To the right of this is a "Select a Mode" section with two radio buttons: "Report Mode" (selected) and "Exact Mode". Below these are dropdown menus for "Year" (2019), "Month" (October), and "Look Back" (3 months). A green "Apply" button is located at the bottom right of this section.

Below this section, there is a "Patient Flow" chart. It displays data from July 1, 2019, to September 30, 2019. The chart has four columns: Enrolled, Active, Completed, and % Recommend Seamless. The data row shows 5 (0 with caregivers) in the Enrolled column, 5 in the Active column, 0 in the Completed column, and 0% (0/0) in the % Recommend Seamless column.

At the bottom left, there is another section titled "Enrollment by Doctor" with data from July 1, 2019, to September 30, 2019. The interface includes standard browser controls (back, forward, search, etc.) and a status bar indicating "1 minutes ago".

Enrolled	Active	Completed	% Recommend Seamless
5 (0 with caregivers)	5	0	0% (0/0)

# SMART App > Chart View

P SMOLIN, IVAN ROMANOVICH opened by Dubois MD, Penny

Task Edit View Patient Chart Links Notifications Navigation Help

Home Physician Worklist ePA Worklist Dynamic Worklist Referral Management HealthRegistries MyExperience Multi-Patient Task List Invitations eCoach Message Center Patient List Cerner Direct Referrals Favorites Management Auto Text Copy Utility

Tear Off Exit Calculator AdHoc Communicate Patient Education Patient Pharmacy iAware Discern Reporting Portal Temporary Location Endorse Results [0] Links Uptodate Result: 0 Messa.: 0 Propo.: 0

SMOLIN, IVAN ROMANOVICH

SMOLIN, IVAN ROMANOVICH DOB: 2/13/1946 Age: 73 years Sex: Male FIN: 000201051 Allergies: Adhesive Bandage, amoxicillin, penicillins Isolation: Clinical Trials: Care Team: Goodman, Meagan Loc: No Outside Records Resuscitation Status: HealtheLife: Yes Advance Dir:

SMART Carevive

carevive Cerner

Patient Summary Treatment Care Planning Distress/Symptom Management Survivorship Care Planning Actions + New

**SMOLIN, IVAN 73 y/o, Male**

DOB: 02/13/1946 Cancer Type: Other cancer

**SURVEYS & CARE PLANS**

This patient has no Survey or Care Plan records.

**SCHEDULED SURVEYS**  Active  All + New

This patient has no Scheduled surveys.

**ALERT HISTORY**

This patient has no alert history records.

P1810 PWMD1 October 03, 2019 2:36 PM CDT

# SMART App > MPage Workflow / Summary

SHILL, ASHLEY x

DOB: 5/5/1980 Age: 39 years Sex: Female FIN: 000258209  
Dose Weight: Isolation: Resuscitation Status:  
Loc: RC HealthCare CommonWell: Not Enabled HealthLife: Yes  
Allergies: penicillins Clinical Trials:  
Care Team: Thomas, Larry Advance Dir:

Provider View

Menu - All SMART FHIR + SMART Medudation

Finish [Click once to save to Discharge Summary]

meducation® FTU7YQNN

Med List Calendar Add Med Print PMI English Regular

Medicine	Structured SIG	Links	Category	Cal	PMI
atorvastatin (atorvastatin 10 mg oral tablet)	1 pill once daily		Daily	<input checked="" type="checkbox"/>	<input type="checkbox"/>
levETIRAcetam (Kepra 500 mg oral tablet)	2 tab by mouth (given by mouth) 2 times per day.		Daily	<input checked="" type="checkbox"/>	<input type="checkbox"/>
multivitamin, prenatal (Prenatal Multivitamins)	1 pill once daily		Daily	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Blue SIG: SIG not recognized Structure unrecognized SIG View PMI (Personal Med Instructions) View demonstration  
Blue Drug: Medicine not recognized Edit SIG instructions PMI unavailable View FDA Med Guide

This screenshot shows the SMART App interface for a patient named SHILL, ASHLEY. At the top, it displays basic patient information: DOB 5/5/1980, Age 39 years, Sex Female, FIN 000258209, and various clinical status flags. Below this is a 'Provider View' header with a 'Menu - All' dropdown. The main content area is titled 'SMART Medudation' and features the 'meducation®' logo. It includes a 'Med List' tab, a 'Med List' table showing three medications with their structured sigs and links to personal med instructions, and several status indicators at the bottom. A blue banner at the top of the main content area says 'Finish [Click once to save to Discharge Summary]'. The interface has a clean, modern design with a dark header and light body sections.

# SMART App > HealtheLife (Patient Portal)

The screenshot displays the HealtheLife Patient Portal dashboard. At the top, there is a navigation bar with links for Dashboard, English (United States) (dropdown), and Sign Out. Below the navigation bar are six menu icons: Assessment, Appointments, Health Trackers, Action Plan, Health Record (which is underlined, indicating it is the active page), and Messaging.

The main content area features the BaseWestHealth logo with the tagline "Because we care". A sidebar on the left lists various patient management sections: Health Profile (selected), Results, Medications, Patient Documents, Procedures, Download & Send, Radiology, Pathology, Clinician Notes, Growth Chart, Medication, and Comprehensive Record.

The central area is titled "Health Profile" and includes a "Print" button. It contains a message: "The information provided below is in the electronic medical record. If you believe any data is incorrect, please notify the office." Below this is a placeholder for a user profile picture and a text input field.

A section titled "Current Medications" is shown, with a note: "Your pharmacy may make changes, so be sure to ask your pharmacist for exact medication instructions." It lists three medications:

- Jantoven 2.5 mg oral tablet [Learn more about this](#)
- Date Started On: Jul 11, 2017
- Ambien 5 mg oral tablet [Learn more about this](#)
- Date Started On: May 25, 2017
- Allegra 30 mg oral tablet [Learn more about this](#)
- Date Started On: Apr 27, 2016
- [Show more info](#)

At the bottom, there is a section titled "Immunizations".

# SMART App > Authorization

## Authorization Needed

I, MANSOOR, GHALIB, (Not you? [Sign out](#)) request that VISN\_MO USPres share the following health information with Meducation - Patient.

VISN\_MO USPres will share this information until I log out:

- personal information
- medications

[View full list of information.](#)

The information you share may be subject to re-disclosure. Consult Meducation - Patient's terms of service and privacy policy.

I, as the authorized representative, am allowing access to the records of:

- MANSOOR, GHALIB (Self, 68)

[Expecting different people?](#)

Please email me a copy of this authorization.

Clicking **Deny** will not impact treatment, payments for treatment, enrollment, or eligibility for benefits at VISN\_MO USPres.

[Authorize](#)   [Deny](#)

# SMART App > HealtheLife (Patient Portal)

The screenshot shows a web-based medication management application titled "Medication - FHIR". The URL is https://mymeds.medication.com/index. The interface includes a navigation bar with back, forward, and search buttons, and a secure connection indicator. A dropdown menu labeled "Import" is set to "Cedars-Sinai", with a "Get" button next to it. Below this, a table lists medications with columns for "Tag" (checkboxes) and "Name".

Tag	Name	Description	ID
<input checked="" type="checkbox"/>	benazepril (benazepril 5 mg oral tablet)	1 tabs, Oral, BID, 60 tabs, 11 Refill(s)	898723
<input checked="" type="checkbox"/>	donepezil (donepezil 10 mg oral tablet)	1 tabs, Oral, Once a Day (at bedtime), 30 tabs, 0 Refill(s)	997223
<input checked="" type="checkbox"/>	ibuprofen (ibuprofen 400 mg oral tablet)	1 tabs, Oral, q4hr, 180 tabs, 0 Refill(s)	197805
<input checked="" type="checkbox"/>	simvastatin (simvastatin 20 mg oral tablet)	1 tabs, Oral, Once a Day (at bedtime), 90 tabs	312961
<input checked="" type="checkbox"/>	warfarin	2 mg, Oral, Daily	11289
<input checked="" type="checkbox"/>	ceFAZolin	1 g, IV Piggyback, Once	2180
<input checked="" type="checkbox"/>	ceFAZolin	2,000 mg, IV Piggyback, Once	2180

A green "Import Selected" button is located at the bottom left of the table area.

# Cerner SMART on FHIR Tutorial

**[bit.ly/cerner-smart-on-fhir-tutorial](https://bit.ly/cerner-smart-on-fhir-tutorial)**

# Community @ Cerner



[code.cerner.com](http://code.cerner.com)



[fhir.cerner.com](http://fhir.cerner.com)



[bit.ly/cerner-code-console](http://bit.ly/cerner-code-console)



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[bit.ly/ignite-apis-community](http://bit.ly/ignite-apis-community)



[github.com/cerner](http://github.com/cerner)

# Questions