



The Da Vinci Project & Blue Button 2.0: Interoperability Initiatives in Medicare FFS and Medicare Advantage

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The Da Vinci Project

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Introduction

Melanie Combs-Dyer, Director Provider Compliance Group (PCG), Center for Program Integrity (CPI)

PCG:

- Serves as Business Function Leads for the medical review units of the Medicare Administrative Contractors (MACs)
- Conducts prior authorization and pre-claim reviews
- Works with MACs, providers, and associations on medical review issues
- Oversees five Medicare Fee-for-Service Recovery Audit Contractors (RACs)
- Leads the CPI effort to reduce documentation requirements



The Da Vinci Project Goals

1. Improve “Provider to Payer” information exchange

- At the time of service
- Integrated into the provider’s workflow
- Examples:
 - Is **prior authorization** required by my patient’s insurance company for the item I’m about to order?
 - Does my patient’s insurance company have a **documentation template** for the service for which I’m about to refer my patient?

2. Improve “Provider to Provider” interoperability

- Kill the fax machine!
- Allow electronic sending of orders, plans of care, and other types of medical records



How and Who?

How Will The Da Vinci Team Accomplish the Goals?

1. Create **implementation guides** based on **Fast Healthcare Interoperability Resources (FHIR) standards** and **sample code** to prove it works
2. Launch **pilots**

Who are the Da Vinci Participants (founding members)?

- 10 payers
- 4 health IT vendors
- 3 EHRs
- 6 providers



The Da Vinci Project Use Cases

Phase 1 (Mar 2018 – Mar 2019)

Coverage
Requirement
Discovery

Documentation
Templates and
Coverage Rules

30 Day
Medication
Reconciliation

Phase 1.5 (Jul 2018 – Jul 2019)

Medical Record
Exchange

Phase 2 (2019 +)

ADT*
Notifications

Authorization
Support
(support for prior
authorization)

Lab
Results

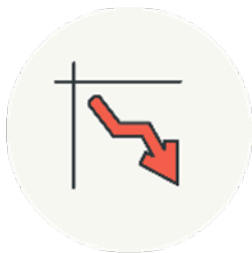
Quality
Measure
Reporting

Risk-Based
Contract Member
Identification

* ADT = Admit/Discharge/Transfer



Why Is CMS Interested in Da Vinci?



**Improper payment
rate** in Medicare
FFS is too high



Documentation
requirements are
too hard to find



Providers are
too reliant on **fax
machines**



Step 1: The Provider Documentation Manual



First topic (oxygen) in summer 2018:

- Goal:
 - 4 topics by 12/18
 - 8 topics in 2019



All coverage and payment documentation requirements will be **IN ONE PLACE:**

- Each topic will have a Self-Audit Checklist so that providers know what is required
- Each topic will have links to PDF Clinical Templates



It will reference and allow you to easily find other online resources:

- Local Coverage Determinations (LCDs)
- National Coverage Determinations (NCDs)
- CMS Manual Instructions



Step 2: The Documentation Requirement Lookup Service



Long Term Project:

- 2018:
 - ✓ Medicare FFS
 - ✓ Some Medicare Adv plans
 - ✓ Some private payers
 - ✓ Some EHR vendors
- Future:
 - ✓ More Medicare Adv Plans?
 - ✓ Medicaid Plans?
 - ✓ More IT vendors



Work closely with Standards Development Organizations (SDOs):

- FHIR-based standards
- Payers build “Rules Libraries”
 - ✓ In a common format
 - ✓ With an “API” (to allow easy access)



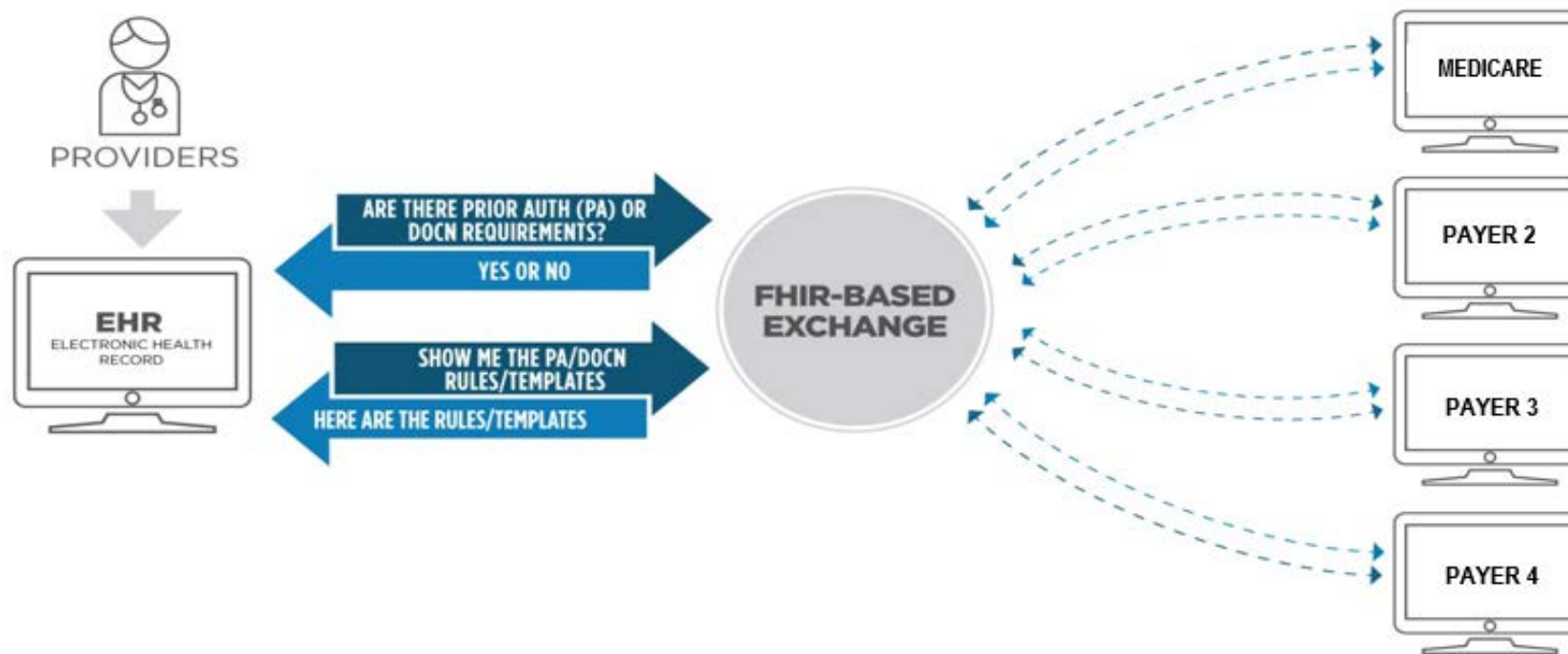
Allow providers to discover documentation requirements at the time of service:

- Right in the
 - ✓ EHR or
 - ✓ Practice Management System
- Including:
 - ✓ Prior Auth required?
 - ✓ Template available?



How Will the Requirement Lookup Service Work for Providers?

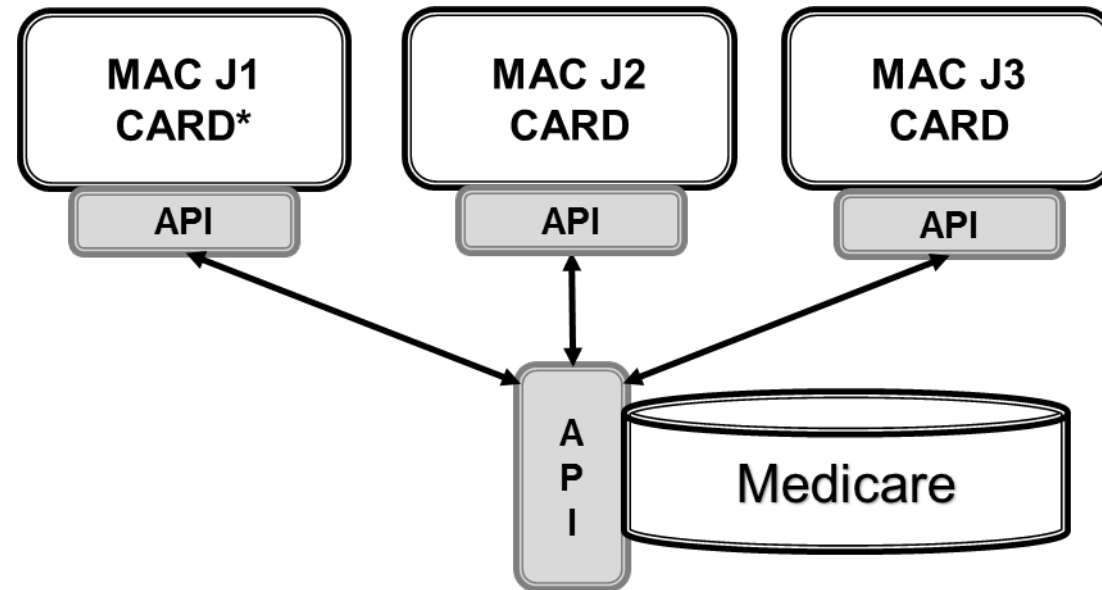
THE DOCUMENTATION REQUIREMENT LOOKUP SERVICE



*FHIR - FAST HEALTHCARE INTEROPERABILITY RESOURCES



How Might the Requirement Lookup Service Work for MACs?



If CMS required the MACs to use the Requirement Lookup Service, CMS would help to ensure the Lookup Service stays current.

*Computer-Assisted Review of Documentation (CARD)



Timeline

- Spring 2018: CPI/PCG will task Mitre with building the **Temporary** Documentation Requirement Repository
- Summer 2018: CPI/PCG is considering hiring a small business to develop Business Requirements for the **Permanent** Documentation Requirement Repository
- Fall 2018: CPI/PCG is considering hiring a small business to build the **Permanent** Documentation Requirement Repository



Is my organization already planning to build a documentation requirement repository?

If not, should we have it on our radar screen for next year?



Questions?

Email to: Melanie.Combs-Dyer@cms.hhs.gov



Medicare's Blue Button 2.0

Allison Oelschlaeger

CMS Office of Enterprise Data and Analytics, CMS





What is Blue Button?



- The Blue Button symbol identifies places to get your personal health records electronically
- With Blue Button, you can:



Reference

your health records to be reminded when you had your last shot, or the exact date of a procedure.



Check

the accuracy of your records, monitor changes, and stay aware of your health status.



Share

with your doctor or someone else you trust, when traveling, seeking a second opinion, moving, switching insurance, or in case of emergency.



Use Apps

to help better manage and coordinate your healthcare to achieve your health goals.



A Brief History of Blue Button



2010

May 2010:
CMS & VA hold innovation
event to increase consumer
access to data through PHRs

Aug 2010:
VA releases Blue
Button download

Sept 2010:
CMS releases Blue
Button download

2018

March 2018:
CMS launches Blue Button 2.0 to add
developer-friendly, standards-based API
to the existing text and PDF downloads





CMS Blue Button in Use Pre-2018

Federally Inspired

Blue Button Community

- VA
- DoD (TRICARE)
- CMS

20–30k
Downloads
per Month

Private sector applications
ingest, optimize, and visualize
data from Blue Button text files

1.5M
CMS users

Beneficiaries can download
up to 3 years of claims data

- Hospital
- Physician
- Prescription drugs



Your Report: JOHN A DOE

PDF

Personal Profile

Name: JOHN A DOE
Address: 123 ANY ROAD
ANYTOWN, IN 46202
Phone Number: 215-248-0684
Email: john.doe@gmail.com

Emergency Contact

Primary
Name: John Doe
Address Type: Home
Address: 123 Sample Road
Anytown, IN 46202
Relationship: Grandchild
Phone Number:

Demographic

Text

Source: MyMedicare.gov

Name: JOHN DOE
Date of Birth: 1/1/1910
Address Line 1: 123 ANY ROAD
Address Line 2:
City: ANYTOWN
State: IN
Zip: 46250
Number: 215-248-0684

2x text
downloads

Effective Date: 2/1/2014
Effective Date: 2/1/2014



Why Improve Blue Button?

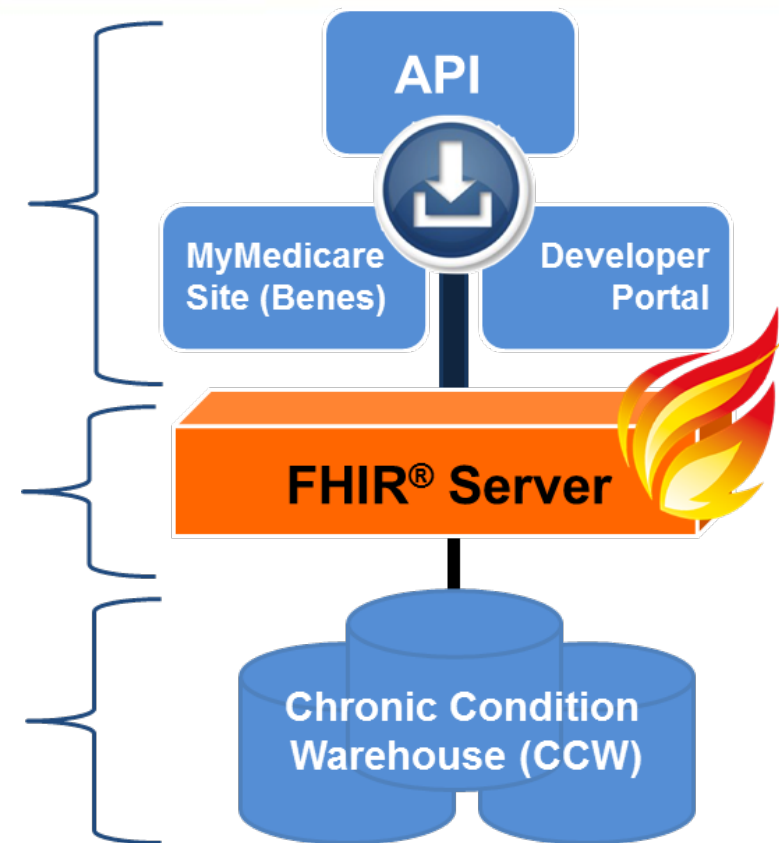
- The original Blue Button was an essential first step, but it left the patient to do the heavy lifting to use and/or share their health data
- Patients should have access and control to easily and securely share their data with whomever they want, making the patient the center of our healthcare system
- Vision for Blue Button 2.0 at CMS:

Developer-friendly, standards-based data API that enables beneficiaries to connect their data to the applications, services, and research programs they trust



Medicare Blue Button 2.0 Design

- Open source front-end application that manages developer and beneficiary access. Beneficiary access is integrated with MyMedicare.gov
- Standard open source reference implementation of Fast Healthcare Interoperability Resource (FHIR®) server
- Claims data for 38M Medicare beneficiaries sourced from the CCW





Why Do We Need an API?

- More secure for beneficiaries
- A better alternative to screen scraping
 - Apps have resorted to automating login to retrieve Blue Button files for beneficiaries
- More granular management of connected applications
- Data is presented in a structured form for easier processing
 - Parsing text file is challenging

CMS Blue Button Data File

Claim Number: 1014118206420
Provider: SELENA W ELLIS MD
Provider Billing Address: 3000 COLBY ST SUITE 305 BER
Service Start Date: 04/17/2014
Service End Date: 04/17/2014
Amount Charged: \$250.00
Medicare Approved: \$162.99
Provider Paid: \$127.78
You May be Billed: \$32.60
Claim Type: PartB
Diagnosis Code 1: 7812
Diagnosis Code 2: 3569
Diagnosis Code 3: 7820
Diagnosis Code 4: 38611

Claim Lines for Claim Number: 1014118206420

Line number: 1
Date of Service From: 04/17/2014
Date of Service To: 04/17/2014
Procedure Code/Description: 99215 - Established Pati
Modifier 1/Description:
Modifier 2/Description:
Modifier 3/Description:
Modifier 4/Description:
Quantity Billed/Units: 1
Submitted Amount/Charges: \$250.00
Allowed Amount: \$162.99

MYMEDICARE.GOV PERSONAL HEALTH INFORMATION

*****CONFIDENTIAL*****

Produced by the Blue Button (v2.0)

12/22/2014 9:17 AM

Demographic

Source: MyMedicare.gov

Name: -REDACTED-

Date of Birth: -REDACTED-

Address Line 1: -REDACTED-

Address Line 2:

City: -REDACTED-

State: -REDACTED-

Zip: -REDACTED-

Phone Number: -REDACTED-6

Email: re-edit
Part A Effective Date: 2/1/1998

Part B Effective Date: 2/1/1998



Using Industry Standards

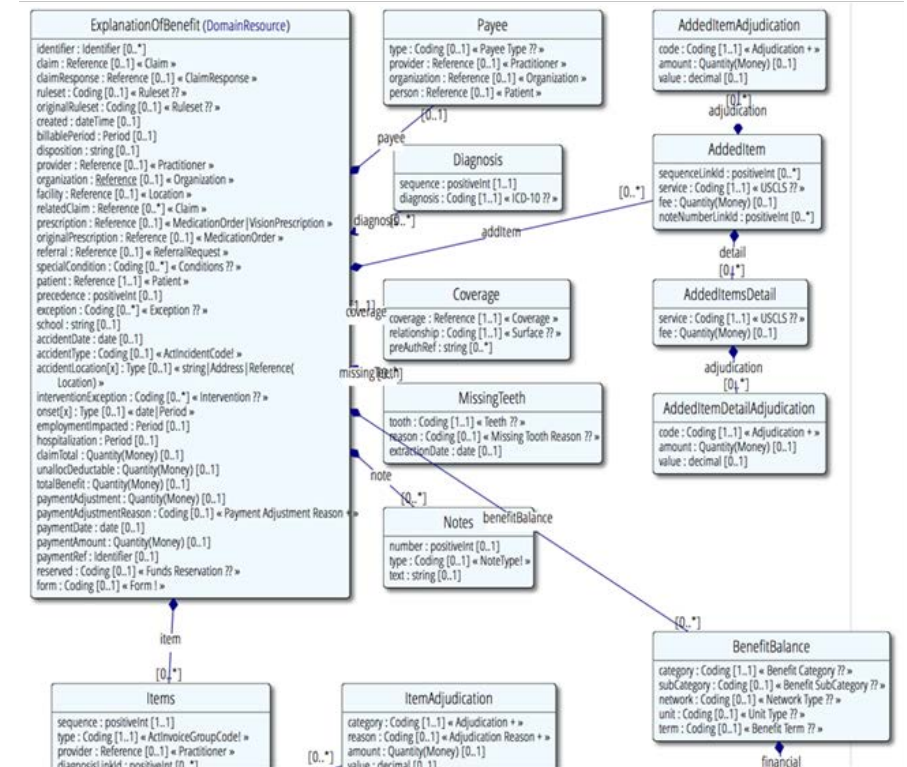
- Embracing industry standards for information formats supports CMS' data transparency goals and promotes interoperability
- The HL7 Fast Health Interoperability Resource (FHIR) community has gained significant traction with their API





FHIR Explanation of Benefits

- For CMS, the “FHIR EOB” is the ideal format for publishing claims-related information for patients
- The “FHIR EOB” is a summary of information from:
 - Claim (diagnosis and procedures)
 - Claim response (payment)





Beneficiary Authentication and Access Controls

- **Step 1 – Authentication:** Use MyMedicare.gov credentials to ensure that a beneficiary may only access and control their own health data
- **Step 2 – Application Permissions:** Beneficiary selects the applications that may access data
 - Permission process is familiar to smartphone and social media users
 - Data is structured with internationally accepted meaning
 - Beneficiaries do not have to reveal their user ID and password to third parties

BlueButtonOnFHIR

Authorize PMI?

The PMI Sample App

- PMI support page
- PMI privacy page

Prototype:
Post-authentication
application permission
screen

PMI requires that you, None, give the following permissions for the use of your Blue Button data:

- ☒ Record my consent to send data to this app
- ☒ Download my claims data and bluebutton profile information

Cancel Authorize



Developer Sandbox

- A pool of 30,000 synthetic beneficiary records and their claims is available
- Designed to enable a Developer to interact with synthetic data within minutes of creating an account
- Detailed documentation at <https://bluebutton.cms.gov>
- <https://sandbox.bluebutton.cms.gov> is open to anyone to register and test their applications



Developer Portal and Validation

- Once Developers have tested their application in the sandbox, they can apply for Production Access
 - <https://bluebutton.cms.gov/developers/#production-api-access>
- All Applicant applications are reviewed before access is granted
- Installing a third party application into Production does NOT give access to Medicare data
 - Each individual beneficiary must explicitly grant access to their own data for each application they choose to trust



Making the Patient the Center of the Healthcare System

Personal Applications



Personal Health Record

Your Report: JOHN A DOE

Personal Profile	
Name	JOHN A DOE
Address	1234 Main Street, Springfield, IL 62761
Phone Number	217-555-1234
Email	john.doe@example.com

Emergency Contact	
Emergency Contact	JOHN A DOE
Address	1234 Main Street, Springfield, IL 62761
Phone Number	217-555-1234
Email	john.doe@example.com

Putting
Patients
at the
Center

Research



Care Coordination





Where is Blue Button Now?

- Announced Blue Button 2.0 at HIMSS 2018 on March 6
- Engaging with more than 250 Developers
- Granted Production access to the first cohort of Applications



Administrator Seema Verma ✓ @SeemaCMS · Mar 6

Blue Button 2.0 is an ordinary name with an extraordinary purpose: giving Medicare beneficiaries access to their health data. It's a giant step toward unleashing innovators to develop applications that will help seniors live healthier lives. #HIMSS18



8

15



Administrator Seema Verma ✓ @SeemaCMS · Mar 6

#BlueButton 2.0 is a new and secure way for patients to share their personal #healthdata -- allowing patients who participate in the traditional #Medicare program to connect their claims data to secure applications, services and research programs they trust.

5

30

36



Blue Button 2.0 Use Cases

- A research organization pre-populates medication lists for a patient during clinical trial enrollment
- A primary care physician receives access to information on other patient care (e.g., tests and labs) to better inform treatment
- A health application aggregates data into a mobile phone health dashboard for beneficiaries to help them manage their medications and medical appointment follow-ups
- A research study combines a beneficiary's Medicare claims with real-time data from a wearable device such as a step tracker or diabetes monitoring device
- A beneficiary can share their data with an application to help them develop a list of all the doctors they see and can track recent visits to those doctors



More Information

<https://bluebutton.cms.gov/>

API

Blue Button API Developer Documentation

[Sign up for the Developer Preview →](#)

[Register an application →](#)

[Overview](#)

[Authorization](#)

[Core Resources](#)

[Try the API](#)

[Meet "Jack"](#)

Overview

The Centers for Medicare and Medicaid Services (CMS) Blue Button API enables Medicare beneficiaries to connect their Medicare claims data to the applications, services, and research programs they trust.

The CMS Blue Button API:

- Enables a developer to register a Beneficiary-facing application
- Enables a beneficiary to grant an application access to four years of their Part A, B, and D claims data
- Uses the HL7 FHIR standard for Beneficiary data and the OAuth 2.0 standard for beneficiary authorization