Da Vinci Prior-Authorization Support Project

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Agenda for March 20, 2019

• HIPAA requirements for Prior-Authorization (PA)
• Da Vinci Overview
• Orientation to Da Vinci use cases
• Approach for PA support
• Alternative workflows

This presentation will refer to FHIR and SMART of FHIR. These are registered trademarks.
Currently providers (ambulatory and in-patient) and payers exchange prior authorization requests and supporting medical records using a number of methods: telephone, fax, portals, and electronic transactions.
Current HIPAA / Anticipated Attachment Approach

- Must be ASC X12N 278 (PA request) / 275 (attachment with CDA)
- May be any method (including ASC X12N)

Alternative Methods:
- Portal, HL7 V2, CDA / Direct, Custom, ...

§162.923 (Requirements for covered entities), if the Clearinghouse services both payer and provider, they must act as two virtual clearinghouses and must provide the transaction as a HIPAA compliant standard transaction internally – not currently enforced by CMS.
Most EHRs do not directly support ASC X12N 278 / 275 and there is no generally implemented standard for real-time exchange with an EHR for PA.
Challenge

Must be ASC X12N 278 (PA request) / 275 (attachment with CDA)
May be any method (including ASC X12N)

Providers
EHR
Pat Adm/Practice Mgmt./BA

Clearing House

Any Method

Clearing House 2

Any Method

Payer 1

Health Insurance

Any Method

Payer 2

Health Insurance

Usually not Real-time for PA / attachments

Only 12% of PA (based on 2018 CAQH INDEX Report) and < 6% of attachments (based on 2017 CAQH INDEX Report) are electronic end to end
Future FHIR Enabled Solution

- Must be ASC X12N 278 (PA request) / 275 (attachment with CDA)
- May be any method (including ASC X12N)
- HL7 FHIR

Translation by software, service, or third party (other than a clearing house)
To ensure the success of the industry’s **shift to Value Based Care**

By providing FHIR based solutions for provider to payer and provider to provider exchanges

**Pre-Collaboration / Controlled Chaos:**
Develop *rapid multi-stakeholder* process to identify, exercise and implement initial use cases.

**Collaboration:**
Minimize the development and deployment of *unique solutions*. **Promote** industry wide *standards* and adoption.

**Success Measures:**
Use of FHIR®, implementation guides and pilot projects.
Empower End Users to Shift to Value

As a private industry project under HL7 International, Da Vinci will unleash critical data between payers and providers required for VBC workflows leveraging HL7® FHIR®.
In Less Than Two Years, Da Vinci Efforts Will Drive Standards for the Exchange of Information Critical to Patient Care

Prior Auth and Documentation Requirements
Payer Clinical Data

Gaps in Care
Attribution (Patient Panel)

Medical Records for Value-Based Care

Quality Measure Reporting
Encounter Notifications

Payers

Providers
Recent data from ONC has shown that more than four out of five hospitals and approximately two-thirds of clinicians report using EHRs that have implemented some version of the FHIR standard.

Members have begun to implementing use cases.

Members represent over 70% of all covered lives and installed EHR Users
Partial List of Da Vinci Members
### Project Outputs
- Define requirements (technical, business and testing)
- Create Implementation Guide
- Create and test Reference Implementation (prove the guide works)
- Pilot the solution
- Deploy the solution

### Use Case Alignment

<table>
<thead>
<tr>
<th>Use Case Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>In HL7 ballot reconciliation as draft standard</td>
<td></td>
</tr>
<tr>
<td>Under active development</td>
<td></td>
</tr>
<tr>
<td>Planned 2019 Use Cases</td>
<td></td>
</tr>
<tr>
<td>In Discovery</td>
<td></td>
</tr>
</tbody>
</table>
Use cases relevant to prior-authorization

Use Case Status
- In HL7 ballot reconciliation as draft standard
- Under active development

Coverage Requirements Discovery (CRD)
(Triggers and manages the conversation with the Payer)

Documentation Templates and Coverage Rules (DTR)
(Payer/coverage rules executable in clinical workflow)

Health Record Exchange: Clinical Data Exchange (CDex)
(Standards for conveying supporting documentation using FHJR)

Prior-Authorization Support
(workflow to exchange PA request/response and supporting documentation with a payer)
Da Vinci uses CDS Hooks to invoke Payer interactions

Technology Overview – CDS Hooks

Lightweight event-driven framework for integration of Clinical Decision Support Services into the EHR workflow

Features:
• Multiple triggers
• Context prefetch
• Provides secure token to access to patient record
• Multiple type of cards for return information/actions
  o Information / warning,
  o Suggestion, with FHIR resource(s)
  o App Launch (e.g. SMART on FHIR) with context
• Supported by Argonaut and major EHR vendors
• No end user training requirements
• Standardization of CDS integration

One of the initial use cases for CDS Hooks
Coverage Requirements Discovery Utilizing CDS Hooks

• Providers need to easily discover which payer covered procedure, DME or other medical service have
  – Requirement for Prior Authorization (PA) or other approvals
  – Specific documentation requirements,
  – Rules for determining need for specific treatments/services
  – Specific guidance.

• Using CDS Hooks, providers can discover in real-time specific payer requirements that may affect the ability to have certain services or devices covered by the responsible payer.

• Response may be
  – The answer to the discovery request
  – A list of services, templates, documents, rules
  – URL to retrieve specific items (e.g. template)
1. Based on a specific clinical workflow event:
   - scheduling,
   - start of encounter,
   - planning treatment,
   - ordering,
   - discharge

2. Provider’s send CDS Hooks based request, with appropriate clinical context to the responsible payer
   a) Payer may request additional information from the provider EHR using existing FHIR APIs
   b) Payer responds to the EHR with any specific requirements that may impact the clinical decisions or coverage

Provider utilizes this information to make treatment decisions while considering specific payer coverage requirements.

Provider requests coverage requirements from payer
Optional: request additional information
Payer responds to the request

Coverage Requirements Discovery
• Providers need to easily incorporate payer requirements into their clinical workflow
  – Requirement for Prior Authorization (PA) or other approvals
  – Specific documentation requirements,
  – Rules for determining need for specific treatments/services
  – Specific guidance.
  – Capture missing information using Structured Data Capture (SDC)
• Uses a FHIR compliant standard (Clinical Quality Language: CQL) to represent payer “rules” for payer medical necessity and best clinical practice requirements that may affect the ability to have certain services or devices covered by the responsible payer.
• Information is retrieved directly from the EHR and does not require duplicate entry
• Provider input is only required for missing or ambiguous information.
• The template and rules may
  – Collect information for prior-authorization
  – Specify provider documentation requirements for coverage, medical necessity
  – Indicate clinical requirements including appropriate use
  – Collect specific documentation for quality measures
  – Respond with specific information as requested/documented in the template/rules
Based on a specific clinical workflow event:
- scheduling
- start of encounter
- ordering or planning treatment
- discharge

DRLS is the CMS instantiation of the Da Vinci Coverage Requirements Discovery (CRD) use case
Graphic taken from the CMS Special Open Door Forum (SODF) presentation
(Da Vinci Prior-Authorization Support Project)

Provider EHR

- **Provider Action**
  - Pre Fetch

  **Provider Initiates App**
  - SMART on FHIR Application
    - 1) Get Payer PA Rules (CQL)
    - 2) Retrieve information
    - 3) Query missing information (SDC)
    - 4) Send PA request with info
    - 5) Receive and display result

Payer PA Service

- **Payer CDS**
  - 1) Evaluates request
  - 2) Gets additional information
  - 3) Issues cards (result or links)
  - 4) If PA required, sends SMART on FHIR link and context
  - 5) Send documentation rules
  - 6) Evaluate PA request
  - 7) Reply with PA result

  **Context with Access Token**

  **Optional link to SMART App**

  **Optional link to SMART App**

  **Optional link to SMART App**

  **Optional link to SMART App**

  **Optional link to SMART App**

  **Optional link to SMART App**

- **1) CDS Hooks**
  - Evaluate request
  - Get additional information

- **2) Access Patient Record**
  - Return CARD(s)

- **3) Return CARD(s)**
  - Optional link to SMART App

- **4) Get Payer PA Rules**
  - Link to SMART on FHIR

- **5) PA Request with MR**

- **6) PA Result**

*Conversion to/from ASC X12N required to meet HIPAA regulations*
**Approaches to Prior-Authorization**

- **Payer-Provider PA mediation (Da Vinci Prior-Authorization Support Project)**
  - Is Prior-authorization required?
    - Yes, here are the rules for information required
    - Based on the rules assemble the information from the record
    - Query for missing information
    - Submit the request and information using current standards (e.g. X12N) to the payer for a decision
    - Receive the response (PAN, denial, additional request for information)

- **Payer only PA mediation**
  - Is Prior-Authorization Required?
    - Yes -- use access to record (as part of CDS Hooks, via token passed with request)
    - Payer accesses record and determines if PA requirements are met
    - Send PAN, denial, or request for information

- **Provider only PA mediation (Auto Auth)**
  - Is Prior-authorization required?
    - Yes, here are the rules for evaluation of information
    - Evaluate existing information
    - Query for and evaluate missing information
    - If documentation meets requirements issues PAN, if not, option to submit to payer or take “out-of-band”
Potential Payer Focused Prior-Authorization

Provider EHR

Provider Action  Pre Fetch

Provider receives PA result

Payer PA Service

1) CDS Hooks
   Context with Access Token
   1) Evaluates request
   2) Gets required information
   3) If PA required, evaluate documentation (may need to retrieve more information)
   4) Reply with PA result via card

Optional link to SMART App if missing information

If information is incomplete, then revert to prior method
Potential Provider Focused Prior-Authorization

**Provider EHR**

- **Provider Action**
- **Pre Fetch**

**Provider Initiates App**

SMART on FHIR Application

1) Get Payer PA Rules (CQL)
2) Retrieve information
3) Query missing information (SDC)
4) Evaluate PA requirements
5) If pass, issue PAN
6) Return results of PA to payer

**Payer PA Service**

1) Evaluates request
2) Gets additional information
3) Issues cards (result or links)
4) If PA required, sends SMART on FHIR link and context
5) Send documentation and PA rules
6) Receive result of PA

**1) CDS Hooks**
Context with Access Token

**2) Access Patient Record**
Optional

**3) Return CARD(s)**
Optional link to SMART App

**4) Get Payer PA Rules**

**5) Return result of PA**
• Using new technologies (FHIR, CDS Hooks, SMART on FHIR, CQL) it is possible to integrate previously time intensive tasks into the clinical workflow to achieve significant efficiencies

• We can substantially reduce provider burden by
  1. Acquiring critical patient information while the patient is available
  2. Obtain prior-authorizations in real-time for certain common services
  3. Minimize rework by “getting it right the first time”

• One critical impact of improving the prior-authorization workflow is the improvement on patient care and experience.
Cross Functional Flow Chart (DTR/Order Version)

<table>
<thead>
<tr>
<th>Office/Hospital EHR</th>
<th>Payer / Contractor / Benefit Manager</th>
<th>Payer/Plan Systems</th>
<th>Supplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) DME Ordered ‘order-review’ hook triggers query</td>
<td>(2) Invokes service &amp; sends pre-fetch FHIR data including order information</td>
<td>(3) CDS Service searches repository leveraging FHIR data, evaluates coverage criteria</td>
<td>(4a) Library of Coverage rules / templates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMART on FHIR App</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(7) Display gaps and collect missing data and store as part of the medical record</td>
<td>(5) Retrieve rules if appropriate, Using CQL, identify gaps in data available in EHR</td>
<td>(4b) Eligibility, Provider/Supplier Enrollment, Claims</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Order placed to supplier</td>
<td>Send CDS Hooks Response with optional link to SMART App</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(8)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CDS Integration into Payer Systems

CRD/DTR

CQL / FHIR / SMART

Direct, FHIR, HL7 V2, eHealth Exchange, Fax

Receives Order, Fulfills Order

Existing EMR Order Process
Cross Functional Flow Chart (PA Version with X12 transaction receipt by payer)
(Alternative is conversion back to FHIR prior to receipt by payer)

Office/Hospital EHR

Clearinghouse or BA

Payer / Contractor / Benefit Manager

Payer/Plan

Supplier

(1) DME Ordered

“order-review” hook triggers query

CDS Hooks

SMART on FHIR App

(2) invokes service & sends pre-fetch FHIR data including order information

(3) CDS Service searches repository leveraging FHIR data, evaluates coverage criteria

(4a) Eligibility, Provider/Supplier Enrollment, Claims

(4b) Eligibility, Provider/Supplier Enrollment, Claims

Part of CRD

Required for Prior Authorization

Conversion to meet HIPAA

Required for DME eRx

Existing EMR Order Process

(5) Send CDS Hooks Response with PA requirement and link to smart template

CDS CARDS

(6) Retrieve rules if necessary, Parse rule from CQL, identify gaps in data available in EHR, populates template(s)

Direct, FHIR, HL7 V2, eHealth Exchange, Fax

(7) Display gaps/template/rule and collect missing data and store as part of the medical record

Display gaps/template/rule and collect missing data and store as part of the medical record

(8) Optional intermediary to convert to ASC X12N 278/275

Gathers all information for PA and sends it directly or via intermediary to payer — returns PAN, Pend, Deny

(9) Optional intermediary to convert to ASC X12N 278/275

(10) Computer Assisted Prior Authorization Engine

(11) PA Record

(12) Optional action

a) order Service

b) Provide PAN with order

(13) Places order to supplier

Order placed to supplier

(14) PA Complete PAN issued

PA Complete PAN issued

(15) Order placed to supplier

Order placed to supplier

(16) End

Part of CRD

Required for DME eRx

Conversion to meet HIPAA

Required for Prior Authorization

Existing EMR Order Process

* PAN – Prior Authorization Number
### CLINICAL SUMMARY

Da Vinci is demonstrating the ability to exchange information between payers and providers using HL7® FHIR® and CDS Hooks® as part of the Interoperability Showcase.

The vignette describes a clinical encounter for 78-year-old Asian women named Dara that starts with her primary care physician, proceeds to a cardiologist who admits Dara to the hospital for an angiogram and observations where it is determined that her chronic obstructive pulmonary disease has progressed to the point that she needs supplemental oxygen.

As Dara returns to her primary care physician, her previous medications are reconciled with those prescribed at discharge, the PCP reports the medication reconciliation, in support of a quality measure the Medicare Advantage program is following for its members.

### HIMSS19 Demonstration

<table>
<thead>
<tr>
<th>Activities By the Numbers</th>
<th>Stats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total practice runs</td>
<td>3</td>
</tr>
<tr>
<td>Total public runs</td>
<td>23</td>
</tr>
<tr>
<td>Filming runs</td>
<td>1</td>
</tr>
<tr>
<td>Total variations</td>
<td>14</td>
</tr>
<tr>
<td>Total roles</td>
<td>96</td>
</tr>
<tr>
<td>Total role system issues</td>
<td>7</td>
</tr>
<tr>
<td>Role availability</td>
<td>92.7%</td>
</tr>
<tr>
<td>AEGIS Touchstone available</td>
<td>100%</td>
</tr>
<tr>
<td>Total MCs</td>
<td>6</td>
</tr>
<tr>
<td>Total EHRs</td>
<td>2</td>
</tr>
<tr>
<td>Total Payer/Partner</td>
<td>4</td>
</tr>
<tr>
<td>Total Payer only</td>
<td>5</td>
</tr>
<tr>
<td>Total Sponsors</td>
<td>16</td>
</tr>
<tr>
<td>Number of visitors (approx.)</td>
<td>500</td>
</tr>
<tr>
<td>Percent that left during vignette</td>
<td>&lt; 10 %</td>
</tr>
</tbody>
</table>

Each step represents a provider – payer exchange using FHIR IG.