Patient referral common data elements

HL7 Plenary & WGM
September 2019
Atlanta
IHMI status update

In 2019 to date we have:

• Pivoted from the Integrated Health Model to supporting HL7 and FHIR (Benefactor membership, working to become a FHIR Accelerator).

• Developed FHIR profiles with clinical content in blood pressure and social determinants of health domains.

• Aligned with UnitedHealthcare and the SIREN Gravity project for social determinants of health and member of the Gravity Steering Committee

Current and anticipated future work:

• Launch this patient referral data standards work as an AMA FHIR accelerator project

• Output of this work to be submitted as data element candidates for USCDI

• SMBP content in FHIR (want to harmonize with and not duplicate Logica and UCSF BP workstreams)

• Virtual scribe

• Exploring research studies with several major AMCs to pilot test new content

The IHMI team is continually exploring new opportunities to contribute to improved interoperability and data liquidity
In 2018 the ONC USCDI TF submitted a request through the IHMI online community suggesting that determination of clinical data elements specific to referral reason and provider specialty may be good work to take on. In conversations with the USCDI TF chairs it was suggested that those data elements could become candidates for a future revision of the USCDI data set.

- We have conducted an outreach campaign with major specialty societies to gauge interest (AAFP, ACC, ACP, ACS). Facilitating ongoing conversations with societies.

- Drafted a use case for a patient with chest pain being referred to a cardiologist by a primary care specialist

- As a starting point and frame for conversation, have developed an initial set of data element candidates to support the data payload in a single patient referral use case

- We are looking for collaborators interested in piloting this content to mature it for eventual submission to HL7 FHIR and to USCDI
Patient referral use case frame: primary care to cardiologist for chest pain

Patient story: Mr. Jones is a widowed 64-year old man with hypertension, hyperlipidemia, mildly overweight, and chest pain of two months duration.

Dr. Smith, Mr. Jones’ primary care specialist, ordered an exercise radionuclide myocardial perfusion stress test to evaluate for ischemia. The images reveal a small area of possible exercise-induced ischemia in the anterior wall, so Dr. Smith wants to refer Mr. Jones to Dr. Rootin, a member of the cardiology group in the same town to evaluate regarding further medical management or possible cardiac catherization.

She wants to be certain that the cardiologist who evaluates Mr. Jones is aware of his medical history, recent medication adjustments, past and recent ECGs, and the results of the recent perfusion stress test.

Assumptions/preconditions: Clinicians desire bidirectional communication, their EHRs that support this.

The patient referral process and the transmission of the needed information is integrated into practice workflow and does not require additional time.

Use case: Primary care specialist patient referral to an outside cardiologist for chest pain

Actors: Patient, primary care specialist, cardiologist, two practices/health systems, each entity’s EHR

Workflow: During her appointment with Mr. Jones, Dr. Smith logs into the vendor B EHR, opens Mr. Jones’ patient record and generates a referral for Mr. Jones to Dr. Rootin using vendor B EHR. Dr. Smith ensures that needed data to support the referral will be sent to Dr. Rootin.
IHMI Referral Management: Data element candidates

General patient data relevant to this scenario

- ECG, blood tests, echocardiogram
- Hospitalizations or ED visits for CP or CAD
- Noninvasive testing for ischemia
- Cardiac computed tomography
- Cardiac arteriography
- Problem list, which would include cardiac specific data such as cardiac surgery, PCI, ICD
- Medications

Data specific to noninvasive testing for ischemia

- Treadmill ECG
- Exercise stress radionuclide myocardial perfusion, pharmacologic stress radionuclide myocardial perfusion, rest myocardial perfusion imaging with technetium-99m
- Exercise stress echocardiogram, pharmacologic stress echocardiography
- Coronary CT angiography
- Coronary MRA, stress cardiac MRI
- SPECT, SPECT-myocardial perfusion
- PET, cardiac PET/CT
Parent PSS: Patient referral CDEs in FHIR

- Primary sponsor/WG: American Medical Association, WG TBD
- Co-sponsor WGs: TBD/unknown
- Deliverables: Development over time of patient referral content standards in FHIR; see child projects

2.c. Project Team

All names should have confirmed their role in the project prior to submission to the TSC.

<table>
<thead>
<tr>
<th>Role</th>
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<td>Seth Blumenthal, AMA</td>
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<td>Publishing facilitator</td>
<td>Corey Smith, AMA</td>
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<td>Vocabulary facilitator</td>
<td>Monique van Buren, AMA</td>
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<td>Domain expert rep</td>
<td>A national expert in patient referrals; potentially someone recruited with the assistance of Dr. Lane.</td>
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<tr>
<td>Business requirement analyst</td>
<td>Natalka Slabyj</td>
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First child PSS: Primary care specialist to cardiologist referral for chest pain; common data elements in FHIR

- Primary sponsor/WG: American Medical Association, WG TBD
- Co-sponsor WGs: TBD/unknown
- Deliverables: Primary care specialist to cardiologist patient referral for chest pain: common data elements profiled in FHIR, with IG, balloted

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Feedback & next steps

The IHMI team seeks your input on how best to work on this project within the HL7 structures and FHIR content development process.

We have drafted two PSS documents – one for the overall patient referral common data elements project, and a “child” PSS for the first specific instance we will work on (likely primary care to cardiologist referral for chest pain)

Our questions

• Appropriate sponsor work group for this project and related work groups?
• Your thoughts on project roles, participants and stakeholders?
• Scope and timing?
• Getting from here to STU balloted FHIR profile(s) and and IG?