AGENDA

Health Information Technology Advisory Committee
Interoperability Standards Priorities Task Force
December 11, 2018, 10:00 a.m. – 11:30 a.m. ET
VIRTUAL

10:00 a.m. **Call to Order/Roll Call**
- *Lauren Richie, Designated Federal Officer (ONC)*

10:05 a.m. **FHIR SME Presentation**
- *Brett Marquard, Principal, WaveOne Associates*

10:45 a.m. **Review of ISPTF Suggestions for Referrals and Care Coordination**
- *Ken Kawamoto & Steven Lane, Task Force Co-Chairs*

11:20 a.m. **Public Comment**

11:30 a.m. **Adjourn**

The Office of the National Coordinator for Health Information Technology

Health IT Advisory Committee

Interoperability Standards Priorities Task Force

Ken Kawamoto, Co-Chair
Steven Lane, Co-Chair

December 11, 2018

Agenda

- Call to Order/ Roll Call
  - Lauren Richie, Designated Federal Officer
- FHIR SME Presentation
  - Brett Marquard, Principal, WaveOne Associates
- Review of ISPTF Suggestions for Referrals and Care Coordination
  - Steven Lane & Ken Kawamoto, Task Force Co-Chairs
- Public Comment
- Next Meeting
- Adjourn

FHIR SME Presentation

Review of ISPTF Suggestions for Referrals and Care Coordination

Public Comment

To make a comment please call:

Dial: 1-877-407-7192

*(once connected, press "*1" to speak)*

All public comments will be limited to three minutes.

You may enter a comment in the
"Public Comment" field below this presentation.

Or, email your public comment to onc-hitac@accelsolutionsllc.com.

Written comments will not be read at this time, but they will be delivered to members of the Task Force and made part of the Public Record.

Next Meeting

- January 22, 2019 10-11:30am ET

The Office of the National Coordinator for Health Information Technology

Health IT Advisory Committee

Meeting Adjourned

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Closed-Loop Referrals and Care Coordination Draft Recommendations

Priority	Observations	Recommendations	Policy Lever(s) / Responsibility
1	Current referral workflows are inefficient, fail to leverage available interoperability tools, leading to increased cost, delays in care and poor care coordination. > Needed patient care may be delayed due to difficulty identifying who is available to accept a referral, and what is their availability. > Patients given a phone number to arrange their own appointment may never follow up. > Specialist may not receive information required to efficiently and effectively care for the patient. > Even when information is provided, if that information is not discrete data it cannot be ingested from the sending EHR system into the recipient EHR system causing expensive data transcription which can lead to transcription errors and adverse events. > Important information is lost, and unnecessary care delays are introduced, due to the **lack of closed-loop communications** between referring providers and consultants. There is promising work being done by the **360X Project** to support closed loop referrals that leverages C-CDA for clinical content, Direct protocols for transport, XDM for establishing context, and HL& V2 messages for referral workflow. This has been successfully tested, but is still in a pre-pilot stage. The success of 360X is dependent on specific **patient identity management** capabilities and the use of **referral identifiers** by EHR vendors. There are currently multiple potential methodologies for representing **message context**. **FHIR** supports provider directories, clinical and workflow messaging and could potentially provide an alternative transport mechanism to support referral workflows	Establish minimum baseline requirements for HIT solutions supporting closed loop referral management, for example: - Requesting systems must support: o Sending a referral to an external system o Receiving update messages from an external system o Support statuses including: Requested, In Progress, Cancelled, Rejected, Complete o Sending, receiving and managing cancellation messages - Receiving systems must support: o Receiving a referral from an external system o Receiving update messages from an external system o Support statuses (as above) o Sending, receiving and managing cancellation messages o Providing available schedule information, and allow external scheduling. > Encourage/support pilots of the **360X** project with a variety of EHR systems and healthcare organizations > Iteratively enhance 360X approach based on real-world feedback. > Encourage expansion of use cases for 360X beyond ambulatory referral management (referring provider and consulting specialist) to include other referral transitions (e.g., Acute care to LTPAC). > Encourage expansion of 360X protocol to include insurance information to determine acceptability of referral and enhance immediate scheduling. > Encourage exploration of the use of 360X for order and referral pre-authorization use cases. > Support the 360X standards for Patient Identity management and the further development and expansion of these capabilities to allow all referral orders to be tracked to completion > Encourage/support efforts to harmonize existing approaches to representing **message context** (e.g., XDM and the DirectTrust IG (http://wiki.directproject.org/file/view/Implementation+Guide+for+Expressing+Context+i	**ONC** > Support 360X piloting via grants, contracts, certification requirement and/or facilitation and coordination > Support FHIR-based efforts to address closed-loop referral and care coordination messaging needs. > Including defined baseline closed loop referral capabilities as a requirement for certification.
1	There is no standardization regarding **what clinical data should be collected prior to referring a patien**t to a given specialist for a given problem or symptom. There is a need for specialty-specific standards regarding what information the “referred to” clinician requires from the “referring” clinician to provide an effective and efficient clinical response for a specific clinical issue. Payers have varying requirements regarding the information required and criteria that must be satisfied in order to provide prior authorization for referrals.	> Identify an organization or convene and support a collaboration to develop and evolve recommendations for what clinical data consulting providers should receive to optimize the efficiency and value of referrals/consultations for all parties (e.g., patient, referring provider, payer, referred to provider, other members of the care team). Begin with prioritizing the top 80% of referral diagnoses across specialties. > Identify, catalog and, as necessary, manage and evolve best practice standard data elements necessary to support efficient, patient-centric referral workflows and processes including prior authorization. > Potential collaborators: - America Medical Association (AMA) Integrated Health Model Initiative (IHMI) - 360X Project Group - Council of Medical Specialty Societies (CMSS) - Physicians' Electronic Health Record Coalition (PEHRC) - Physicians Consortium for Performance Improvement (PCPI) - Health Services Platform Consortium (HSPC) - Healthcare Information and Management Systems Society (HIMSS) - EHRA Electronic Health Record Association (EHRA) - Da Vinci Project - Payer-Provider (P2) FHIR Task Force > Consider piloting FHIR Argonaut Questionnaires when additional information, beyond top 80%, is needed.	

Priority	Observations	Recommendations	Policy Lever(s) / Responsibility
1	EHR-integrated solutions for secure **clinician-to-clinician patient-specific messaging** are lacking, especially when clinicians work in different organizations or with different EHR/HIT systems. While currently required Transitions of Care messaging and 360X leverage Direct, this standard has been implemented inconsistently by EHR and other HIT vendors and operationalized inadequately by many providers and healthcare organizations. The features and functions necessary to support the clinical usability of Direct messaging have been enumerated and prioritized *(App Clin Informatics*, Vol. 9 No. 1, 2018) Direct interoperable features, functions, implementations and usage could be improved and FHIR could potentially support secure clinical messaging and provide an alternative transport mechanism for this function.	> Support, incentivize and eventually require EHR vendors to consistently provide the functionality necessary to fully utilize the capabilities of Direct and/or other compatible transport mechanisms for cross-organizational secure clinical messaging. > Investigate how FHIR-based approaches can be developed and leveraged to support clinical messaging for referrals and care coordination.	**ONC** > Include secure, cross-organizational clinical messaging capabilities as a requirement for certification.
1	Referral management and care coordination both require the ability to reliably identify and locate providers and to have an understanding of the messaging capabilities of each provider. > Argonaut has published a provider directory implementation guide (http://www.fhir.org/guides/argonaut/pd/) > HL7, *et al* have published a Validated Healthcare Directory implementation guide. (http://build.fhir.org/ig/HL7/VhDir/index.html)	> Support the development and advancement of a nationwide standard for **provider directory management** including information regarding: - Contact information including Direct address(es) - Preferred method(s) of communication - Messaging capabilities supported for each communication method	
1	Establishing the required **governance** for information sharing, enabling referral scheduling, etc., takes substantial effort and can be a barrier to closed-loop referrals and care coordination. Governance over Direct messaging is currently provided by DirectTrust, though this does not directly impact provider organizations' decisions regarding implementation or support of this functionality. The Trusted Exchange Framework and Common Agreement (TEFCA) called for by the 21st Century Cures Act promises to provide a national framework and governance for connecting healthcare organizations, and may be leverageable for this purpose as "snap-on" governance.	> Include access to and governance of push messaging and the associated technical and workflow requirements necessary to support referrals and care coordination in the scope of the final TEFCA.	
2	Referral management and care coordination currently rely on fax, telephone, and postal mail communication that does not automatically incorporate relevant information into patients' electronic medical records and clinicians' EHR workflows, with resultant process inefficiencies, and increased clinical and privacy risks for patients.	> Support efforts to transition to and eventually require secure, cross-organizational, cross-vendor, EHR-integrated electronic messaging between providers, payers and all care team members.	
2	**Patient-clinician messaging** is currently supported principally within EHR-integrated patient portals. Patients desire to be able to leverage other methods of secure communication that allow them to utilize a chosen application interface to message with providers and other caregivers at multiple institutions or using multiple EHRs or other HIT systems. Any viable solution to support patient-clinician communications must fully integrate with EHR workflows. Early experience with patient-to-provider **Direct** messaging suggests that this is a feasible solution but there has been little adoption by the provider community. **FHIR** could potentially support secure clinical messaging with patients and provide an alternative transport mechanism for this function.	> Support pilots of patient to provider messaging using multiple available technology solutions.	

Priority	Observations	Recommendations	Policy Lever(s) / Responsibility
2	**Real time text messaging** is increasingly being used to support clinical communications both within and between clinical organizations. Such messaging is often performed outside of the EHR without creating permanent documentation of the associated clinical decision making or communication.	> Develop standards for the use of secure real time text messaging t**hat supports integration with EHR documentation and workflows.**	
2	Patient care is fragmented, inefficiencies and redundancies are introduced, and potential patient safety hazards are created due to the lack of coordination between care providers. A standard **multi-stakeholder, multi-institutional care plan** could help address this lack of coordination. There is some work in this area, but more foundational research and development is needed.	> Investigate various approaches, such as those based on the FHIR and C-CDA Care Plan. > Ensure that the patient, caregiver and family goals and wishes are incorporated into the care plan.	**ONC, CMS, AHRQ, NIH** > Sponsor R&D in this area, with a particular focus on the use of standards-based approaches to enable scaling.
General	There are many custom **solutions that use different approaches**. E.g., HL7 v2/v3/CDA, FHIR, and Direct. This adds cost and complexity.	> Actively seek out and identify opportunities to **consolidate, simplify** and render cost effective the health IT interoperability landscape, now and in the future.	**ONC** > Commission effort to identify functional overlap between standards and identify opportunities for consolidation and/or harmonization. > For individual ONC-funded projects, consider including requirement or optional tasks for exploring such cross-use-case harmonization and de-duplication in the project scope.
General	There are areas of healthcare interoperability, including this one, where there is **no clear best approach**, and multiple potential approaches that can be taken. We therefore can't tell yet what will work best.	> Avoid "choosing a winner" prematurely and remain open to potential alternative approaches which may ultimately be superior for a given problem or in a larger context that considers multiple important use cases (e.g., by avoiding the need to maintain separate infrastructure for multiple use cases).	

ISPTF_IHMI Clinical Content Submission_Referrals Data Standards

Clinical Validation Process - Clinical Content Submission

https://ama-ihmi.org/posts/new?context_id=280&context_type=Group&post_type=contest_submission

Submission Author

Name Steven Lane, MD, MPH, FAAFP

Title Co-chair, Interoperability Standards Priorities Task Force (ISPTF)

Affiliation Office of the National Coordinator for Health Information Technology (ONC)

Submission Title & Description

Title Data collection/submission standards for consultation/referral by condition/complaint and specialty

Topic There is a need for specialty-developed and specialty-specific standards regarding what information the "referred to" clinician requires from the "referring" clinician to provide an effective and efficient clinical response for a specific clinical issue. Each specialty receives requests for a limited number of issues (specific diagnoses) which in aggregate account for eighty percent of their referrals. These specialty-specific issues are the focus of this proposal. We believe that each specialty should take the lead in defining what its practitioners require including, but not limited to, specific clinical data (e.g., history, physical, lab, imaging, screening or other patient completed survey tools, etc.), rationale (e.g., according to clinical and/or prior authorization guidelines), and other specified data (e.g., clinical question(s) to be answered, priority, desired outcome). The expectation is that information required by the specialist to create an effective and efficient response will be collected and documented by referring providers and communicated to the consulting specialist as part of referring a patient for a given problem. Incorporating such information standards into referral processes is likely to improve the efficiency and value of referrals for multiple stakeholders including patients.

Project scope Convene and coordinate between specialty societies and other stakeholders as appropriate to identify/catalog their most common/appropriate reasons for referral/consultation.

Develop and evolve recommendations for what clinical data consulting providers should receive to optimize the efficiency and value of referrals/consultations for all parties (e.g., patient, referring provider, payer, referred to provider, other members of the care team).

Identify, catalog and, as necessary, manage and evolve best practice standard data elements necessary to support efficient, patient-centric referral workflows and processes.

This work effort may benefit from collaboration with other organizations including:

- Physicians' Electronic Health Record Coalition (PEHRC)

- Healthcare Information and Management Systems Society (HIMSS)

- Council of Medical Specialty Societies (CMSS)

- Physicians Consortium for Performance Improvement (PCPI)

- Health Services Platform Consortium (HSPC)

- EHRA Electronic Health Record Association (EHRA)

- 360X Group

Goals Develop a flexible/extensible methodology for documenting and maintaining best practice referral content standards.

Integrate referral content standards into evolving technology solutions and workflows to support closed loop referrals, specifically the 360X Closed Loop Referrals Project.

Submission collaborators

Kensaku Kawamoto MD, PhD, MHS; Co-chair, ONC Interoperability Standards Priorities Task Force; Associate Chief Medical Information Officer; University of Utah Health.

Terrence O'Malley MD; Co-chair, ONC US Core Data for Interoperability (USCDI) Task Force; Partners HealthCare, Massachusetts General Hospital

Holly Miller, MD, MBA, Chief Medical Officer, MedAllies

Relevant links

https://oncprojectracking.healthit.gov/wiki/display/TechLab360X/360X+Home

https://oncprojectracking.healthit.gov/wiki/display/TechLab360X/360X+Implementation+Guide

HL7 IG: Transitions of Care and Referral Templateshttps://www.healthit.gov/isa/support-a-transition-care-or-referral-another-health-care-provider

https://www.healthit.gov/hitac/committees/interoperability-standards-priorities-task-force

https://www.healthit.gov/hitac/committees/us-core-data-interoperability-task-force

https://journals.lww.com/ambulatorycaremanagement/Citation/2018/10000/Closing_the_Referral_Loop__Improving_Ambulatory.2.aspx

Image

https://oncprojectracking.healthit.gov/wiki/images/logo/default-space-logo.svg

Use Case for Submission

Introduction

Referring providers working within an EHR enter a referral order, specify a reason for referral, desired outcomes of the referral, and identify/select an appropriate and

available referred-to provider and timeframe for the consultation appointment to occur. The referring provider includes information in the referral, based on the patient's clinical issue to be addressed by the specialist, patient, payer, and referred-to provider characteristics. There is no existing best practice standard for:

- What constitutes an appropriate referral and what the primary care physician should address prior to referral
- The clinical information to be included for the specific clinical issue the specialist is being asked to address

This leaves the referring provider using their best judgment and prevents the ability for health information technology vendors to create time saving templates that would electronically collect the information to be sent to the specialist automatically, thereby requiring a manual process to gather the information to be sent.

Creating best practice diagnosis-specific recommendations would allow for an automated EHR process, and allow the collection of specific clinical data and provide a process to submit this data automatically to the consultant, and the payer as necessary, as part of the referral. Some of the data required/desired by the payer and/or referred to provider may already exist within the patient's electronic health record, while some may require additional data collection from outside sources or require the referring physician to order the tests and studies to be completed prior to the specialty encounter facilitating the efficiency of the encounter and preventing data duplication.

Currently missing are templates based upon semantically standardized vocabulary specifying the exact data required by the consultant for a particular problem. The simplest process to determine these templates is to ask specialist groups to identify the problems comprising their most common referral requests, and for each problem to specify the data that are "essential to have" and those that are "nice to have". These data would comprise "V1" of the referral templates and could be modified based on subsequent use.

The referral process would include communication of all relevant data to the referred-to provider. The system should also be able to support the collection and transmittal of all data necessary to support prior authorization requirements. Information from the EHR system of the referring provider is transmitted to and incorporated into the EHR of the referred-to provider to support their clinical and administrative workflows. Upon completion of the consultation the results generated consequent to the consultation encounter (both textual reports and any discrete data generated) should be transmitted back to the referring provider for incorporation into their EHR.

Clinical basis and data elements

Potential Data Elements for standardization:

- **Specialties** for referring and referred to providers - Over time could include medical/surgical specialties, other licensed independent providers (including dentistry, behavioral health), therapies (PT, OT, ST, etc.), nursing, complementary, home health,

- Appropriate (and potentially inappropriate) **reasons for referral** by specialty, e.g., symptom, condition, diagnosis, clinical situation

- **Services requested**, e.g., one time consult for opinion, consultation and follow-up, specific procedure, transfer of care for specific condition, ongoing care coordination

- **Information requested**, e.g., free text report, specific test results, conversational messaging for ongoing care coordination

- **Format of requested information**, e.g., HTML, C-CDA, FHIR, etc.

- **Referral urgency** / requested time frame - likely specified by care setting, e.g., acute, post-acute, ambulatory, home care, etc. (Defined in 360X Standard)

- **Referral Status**(es) - e.g., approved/denied, scheduled/rescheduled, missed appointment, completed (Defined in 360X Standard)

- Data relevant to trigger clinical and administrative decision support including:

    - Data relevant to requesting/receiving **Prior Authorization**, e.g., payer/coverage information, payer-specific requirements

- **Patient-specific requirements**, e.g., language/cultural, transportation, scheduling restrictions/requirements

- **Consultant-specific requirements**

- **Consultant schedule availability** data

- Closed loop **communication statuses**, e.g., report status (draft vs. final), report sent/delivered/acknowledged

Clinical guidelines

Existing clinical guidelines to support appropriate referral, consultation and care coordination workflows between referring and consulting providers should be identified as part of this project. Gaps/needs in this area are likely to emerge naturally as referral processes are standardized. This could lead to a fruitful area of research aimed at optimizing the efficiency and value of the referral process.

User story

A clinician determines that an opinion from a specialist is required to optimize treatment for a specific clinical issue. Instead of relying on his or her personal understanding of what constitutes the clinical information required by the referred-to specialist, the referring clinician's EHR displays an automatically completed problem-specific template based on best practice medical guidelines form specialty societies to start the referral process. The template contains all of the information that the relevant specialty society has determined to be essential for an efficient, accurate and complete opinion.

The EHR automatically populates the template with currently available data insofar as possible and prompts the referring clinician to order missing or inadequately current test and study data. The template also prompts the referring clinician to specify a specific consultant, group or institution as well as metadata that directs the referral process by indicating the urgency of the referral (emergent, urgent, routine), appropriate time between referral and evaluation (e.g. 1 day, 1 week, 1 month), whether the referral is one time only or for ongoing care, and the preferred method for receiving the opinion (e.g. verbally, message within the EHR, email).

Once complete, the template triggers a set of messages as described in the 360X project to create a closed-loop referral process that runs in the background and insures that the referral is completed within the agreed upon requirements for completeness and timeliness. Any breakdown in the process automatically triggers a series of query-response messages to identify remedial steps.

Assumptions

Both the "referring" and "referred to" clinicians use certified EHRs

Their respective EHRs can exchange standards-based content and the messages types required by 360X without degradation or need for translation.

There is a governance structure in place that determines and enforces performance standards, as well as provides for continuous process improvement.

Specialist groups or societies are willing to specify the problem-specific-data they require

Predicate work

See Relevant Links above.

Implementation plan

Priorities and work plan per IHMI.

Data Element Specification (below) to be provided by specialty groups and societies

Data element specification