The Office of the National Coordinator for Health Information Technology

Health IT Advisory Committee

Interoperability Standards Priorities Task Force December Update

December Report on ISPTF Activities

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Agenda

- **ISPTF Activities since October**
  - » Steven Lane & Ken Kawamoto, Task Force Co-Chairs
- **Closed-Loop Referrals and Care Coordination Draft Recommendations Summary**
  - » Steven Lane & Ken Kawamoto, Task Force Co-Chairs
- **Discussion of Draft Recommendations**
  - » Committee Members
- **Recap of Orders & Results Priorities and Updated Draft Recommendations**
  - » Steven Lane & Ken Kawamoto, Task Force Co-Chairs

ISPTF Activities since October

- The ISPTF held 5 meetings on Closed-Loop Referral and Care Coordination
- The TF received presentations from Brett Andriesen (ONC), Luis Maas (Direct Project), Matt Menning (AMA), and Brett Maquard (WaveOne Associates) on the standards associated with Closed-Loop Referral and Care Coordination
- The TF, in subsequent discussions, has identified 2 additional priories and recommendations associated with the Orders & Results recommendations which were presented to the HITAC in October

Closed-Loop Referral and Care Coordination Draft Recommendations Summary

Priority 1

- Priority 1A: Closed-Loop Communications
- Priority 1B: Clinical Data collected prior to and sent at the time of referring a patient
- Priority 1C: Clinician-to-Clinician Patient-Specific Messaging
- Priority 1D: Referral Management and Care Coordination
- Priority 1E: Governance

Priority 2

- Priority 2A: Automatically incorporate relevant patient information into EHR
- Priority 2B: Patient-Clinician Messaging
- Priority 2C: Multi-Stakeholder, Multi-institutional Care Plan
- Priority 2D: Real time text messaging

Additional General Observations

- Similarity of technological and procedural requirements between Referrals & Care Coordination, and Orders & Results
- Consideration should be given to many examples of Transitions of Care, such as outpatient testing, ED, and LTPAC facility transfers
- Added cost and complexity associated with custom interoperability solutions
- Some components of health information interoperability have no clear single best approach, requiring harmonization and support for multiple approaches

Closed-Loop Referral and Care Coordination Draft Recommendations

- **Priority 1A: Lack of Closed-Loop Communications**

  Establish minimum baseline requirements for HIT solutions supporting closed loop referral management

  - » 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 to include other referrals and transitions of care (e.g., Acute care to and from LTPAC)
    - – Encourage exploration of the use of 360X for order and referral prior authorization use cases
    - – Encourage expansion of 360X protocol to include insurance and prior authorization information to determine acceptability of referral and support real time scheduling
  - » 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
  - » Investigate how FHIR-based approaches can best be leveraged to support closed loop referral and care coordination messaging workflows.
    - – Encourage pilots Argonaut Scheduling for external appointment creation

Potential Policy Actions Addressing Priority 1A

- 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
  - Include defined baseline closed loop referral capabilities as a requirement for certification
- CMS
  - Align relevant programs, including MIPS, MSSP, medical home, etc., to reward activity that improves care through electronic closed-loop referral

Closed-Loop Referral and Care Coordination Draft Recommendations (Cont'd)

- **Priority 1B: Standard clinical Data should be collected prior to referring a patient**
  - » Support a collaboration to develop recommendations for providers to optimize referrals/consultations for all parties
    - – Clinical specialty and diagnosis/problem specific recommendations
  - » Identify and evolve best practice standard data elements necessary for collection and transmission to support efficient, patient-centric referral workflows and processes including associated prior authorization requirements

Potential Policy Actions Addressing Priority 1B

- ONC
  - » Convene and/or support stakeholders to profile minimal standards of clinical and administrative data required and desirable for clinical referrals
    - – Provide exemplars in C-CDA and FHIR
    - – Include best practice guidance for display of those standards
  - » Align the clinical referral profiles with the USCDI; specifically, allow for clinically relevant profiles of USCDI to be sent in clinical referral workflows

Closed-Loop Referral and Care Coordination Draft Recommendations (Cont'd)

- **Priority 1C: Clinician-to-Clinician Patient-Specific Messaging**
  - » Support and incentivize EHR and clinician user adoption of functionality needed to fully utilize compatible transport mechanisms (e.g., Direct)
  - » Investigate how FHIR-based approaches can be leveraged to support clinical messaging for referrals and care coordination
- **Priority 1D: Provider Directories**
  - » Support the development and advancement of a nationwide standard for provider directories and their management to support referrals and care coordination, including cross-organizational clinical messaging
- **Priority 1E: 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

Closed-Loop Referral and Care Coordination Draft Recommendations (Cont'd)

- **Priority 2A: Automatically incorporate relevant patient information into EHR**
  - » Support transition to and eventually require secure, cross-organizational, cross-vendor, EHR-integrated electronic messaging between providers, payers and all care team members
- **Priority 2B: Patient-Clinician Messaging**
  - » Support pilots of patient to provider messaging using multiple available technology solutions, e.g., Direct, FHIR
    - – Provide flexibility to individuals/patients to select the messaging tools of their choice and to manage messaging with care team members utilizing disparate HIT solutions
    - – Viable messaging solutions will integrate with established clinician workflows for portal-based messaging

Closed-Loop Referral and Care Coordination Draft Recommendations (Cont'd)

- **Priority 2C: Patient-centric, Multi-Stakeholder, Multi-institutional Care Plan**
  - » Investigate various approaches, such as those based on the FHIR and C-CDA Care Plan
  - » Ensure that patient, caregiver and family goals and wishes are incorporated into the care plan
- **Priority 2D: Real time text messaging**
  - » Explore the usage of and development of standards for the use of secure real time text messaging that supports appropriate integration with EHR documentation and workflows

Potential Policy Actions Addressing Priority 2C

- ONC, CMS, AHRQ, NIH
  - » Sponsor R&D in the area of multi-institutional care plans, with a particular focus on the use of standards-based approaches to enable scaling

Additional Closed Loop Referral Draft Recommendations

- **Technology needs to support Care Coordination and Orders & Results**
  - » Identify opportunities for harmonization of technology standards and governance support of various instances of closed loop exchanges
- **Transitions of Care**
  - » Identify opportunities for harmonization of technology standards and governance support of various instances of Transitions of Care
- **Custom interoperability solutions add cost and complexity**
  - » Actively seek out and identify opportunities to consolidate, simplify and render cost effective the health IT interoperability landscape
- **Health data interoperability needs with no clear single best approach**
  - » Avoid ”picking winners” prematurely and remain open to potential alternative approaches which may ultimately be superior for a given problem or in a larger context that considers various use cases

Potential Policy Actions Addressing Additional Recommendations

- ONC
  - Commission effort(s) to identify functional overlap between standards and identify opportunities for consolidation and/or harmonization
  - For individual ONC-funded projects, consider including required and/or optional tasks for exploring such cross-use-case harmonization and de-duplication in the project scope
  - Convene HL7, DirectTrust, Argonaut Project, TEFCA participants, EHR vendors, and other relevant stakeholders to establish a standards evolution path to allow applicable functionalities currently available in Direct to also function in FHIR
  - Develop certification criteria and associated CMS programmatic changes to allow a flexible transition to the appropriate use of the FHIR standard

Recap of Orders & Results Priorities and Updated Draft Recommendations

(Originally presented to HITAC on October 17, 2018)

Recap of Orders & Results Priorities & Draft Recommendations

- Priority 1: Results Ordering
  - Priority 1A: Consistent encoding of Lab & Other test results
  - Priority 1B: Results need to be sent to clinicians in codified format
  - Priority 1C: Results need to be available for patients/proxies to effectively view, receive, and utilize
  - Priority 1D: Orderable tests need to be standardized between systems and with mapping to standard terminologies
- Priority 2: Standardization
  - Priority 2A: Need standard methodology to integrate external decision support for all stakeholders into orders workflow
  - Priority 2B: Need standards to support Prior Authorization workflows

Priority 1A: Consistent encoding of Lab & Other test results Draft Recommendations

- Standardized Logical Observation Identifiers Names and Codes (LOINC) & Systematized Nomenclature of Medicine - Clinical Terms (SNOMED-CT) coding must be provided by resulting agencies as a Clinical Laboratory Improvement Amendments (CLIA) requirement.
- Identify and prioritize the most common/important results of each order type (including but not limited to lab, imaging, cardiac, pulmonary, neuro-muscular).
- Require and enforce the use of information models and terminology standards for all test orders and results.
- Mapped codes must be included with results as they are maintained in and exchanged between health information technology (HIT) systems.
- Resulting systems, e.g. electronic health records (EHRs) & laboratory information systems (LISs) should provide a mechanism that allows clients to map internal result codes to standard vocabularies.
- Implement mechanisms to support and ensure proper LOINC encoding by resulting agencies, such as auditing or certification by CLIA.

Priority 1B: Results need to be sent to clinicians in codified format Draft Recommendations

- Utilize US Core Data for Interoperability (USCDI) to assure that prioritized results are interoperable via HL7 v2 messages (where applicable), C-CDA, Fast Health Information Resources (FHIR), and future transport standards.
- Prioritize complete and accurate coding at the data source (e.g., LIS, RIS) rather than trying to code or correct externally sourced data downstream.
- Require that resulting agencies provide standardized metadata, (e.g., methodology, units, normal ranges) to ordering and copy to providers as well as patients.
- Standard metadata must be maintained as result data is transmitted between systems (e.g., LISs, Imaging systems, EHRs, PHRs, HIEs, Payers, and Public Health).

Priority 1C: Results need to be available for patients/proxies to effectively view, receive, and utilize Draft Recommendations

- Require that ordering providers make results available to patients/proxies within a reasonable timeframe, as allowed by state laws, assuring that, where appropriate, providers have an adequate opportunity to review and comment on results to facilitate patient interpretation.
- Make all results in the EHR available to patients via APIs, whether or not results are LOINC/SNOMED-CT encoded.
- Develop and require the use of standardized "patient friendly" result display names to patients based on LOINC and SNOMED-CT standards (in process).
- In the future consider requiring resulting agencies to make results available directly to patients. This could initially be required via CLIA regulations. As necessary, this could be required as a condition of payment for resulting agencies.
- Alignment of state and federal policies to assure consistent and predictable patient data accessibility and interoperability. This should begin with a clear articulation of varying state requirements, followed by specification of national standards to promote maximal sharing of data with patients/proxies in both human and machine-readable formats.

Priority 1D: Orderable tests need to be standardized between systems & with mapping to standard terminologies Draft Recommendations

- Develop and eventually require the use of standards-based catalogs of orderable tests with consistent mapping to associated code sets (e.g., LOINC) for all order types.

- Utilize consensus development process to develop standard orderables for the most common/important tests of each order type, including the orders that link to prioritized results.

- Standardize commonly used order panels, building on the ~2,000 order panels currently cataloged by LOINC.

Priority 2A: Need standard methodology to integrate external decision support for all stakeholders into orders workflow Draft Recommendations

- Leverage and advance CDS Hooks standard.

- Develop and support the use of standards to determine and expose net pricing information to relevant stakeholders including providers, payers, and patients.

Priority 2B: Need standards to support Prior Authorization workflows Draft Recommendations

- A number of Prior Authorization standardization efforts are underway, including Da Vinci, NCPDP, and CMS Appropriate Use Criteria requirements. These efforts should be harmonized into a consistent approach.

Additional Recommendations

Additional draft recommendations being considered since October

- Priority: Provenance Metadata
  - Require interoperability of provenance and order/result internal identifier data
  - If received data represents an update to a previously received item, the receiving system should be able to identify and addend the earlier version
  - Provenance and internal identifier data inclusion should be independent of transport mechanism
- Priority: Identifying and Preventing Tampering/Data Modification
  - Explore the value of requiring digital signatures on appropriate order and result data
  - A digital signature should allow the originating system to be confirmed, and the values to be verified, and reveal any tampering that may have occurred

Next Domain Areas for ISPTF Review

- Evidence Based Disease Management
- Medication/Pharmacy Data

- Next ISPTF meetings scheduled 01/08/19, 01/22/19

Questions?