



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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December 13, 2018



# 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 priorities 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



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## Questions?

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