

HIT Standards Committee Implementation Workgroup

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Department of Health & Human Services
Office of the National Coordinator for
Health Information Technology

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Department of Defense
Texas Health & Human Services Commission
Kaiser Permanente
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RelayHealth
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NextGen



Overview

- 2014 Edition Draft Test Method Recommendations
 - Process
 - Recommendations by Wave
- 2014 Edition Test Scenarios Development
 - Unit Based Testing
 - Scenario Based Testing
 - Approach, Process, and Types
- Next Steps
 - Test Scenarios
 - Stage 3 Meaningful Use
 - Public Hearing



2014 Edition Draft Test Method Recommendations



2014 Edition Draft Test Method Recommendation Process – Draft Test Method Posted

2014 Edition Draft Test Method Posted

September 7 – November 8, 2012

ONC released 2014 Ed. Draft Test Method

- Wave 1 – September 7, 2012
- Wave 2 – September 14, 2012
- Wave 3 – September 21, 2012
- Wave 4 – September 28, 2012
- Wave 5 – October 18, 2012
- Wave 6 – November 2, 2012
- Wave 7 – November 8, 2012



2014 Edition Draft Test Method Recommendation Process – Public Review

**2014 Edition Draft
Test Method Posted**

September 7 – November 8, 2012

Public Review

September 7 – November 22, 2012

Provided individual feedback to ONC

- Two weeks of public review per wave
- Wave 1 – Sept. 7 – Sept. 21
- Wave 2 – Sept. 14 – Sept. 28
- Wave 3 – Sept. 21 – Oct. 5
- Wave 4 – Sept. 28 – Oct. 12
- Wave 5 – Oct. 18 – Nov. 1
- Wave 6 – Nov. 2 – Nov. 16
- Wave 7 – Nov. 8 – Nov. 22



2014 Edition Draft Test Method Recommendation Process – IWG Review



IWG provided recommendations

- Waves 1 – 4
(36 of the 47 test procedures)
- Reviewed summary of public comments
- Recommended concepts not captured in public comments
- No recommendation if public comments were comprehensive



2014 Edition Draft Test Method Recommendations

Wave 1
(14 Test Procedures)

Wave 2
(7 Test Procedures)

Wave 3
(6 Test Procedures)

Wave 4
(9 Test Procedures)



2014 Edition Draft Test Method Recommendations – Wave 1 Test Procedures

Wave 1
(14 Test Procedures)

Wave 2
(7 Test Procedures)

Wave 3
(6 Test Procedures)

Wave 4
(9 Test Procedures)

Wave 1

- 170.314(a)(1) Computerized provider order entry
- 170.314(a)(4) Vital signs, body mass index, and growth charts
- 170.314(a)(5) Problem list
- 170.314(a)(6) Medication list
- 170.314(a)(7) Medication allergy list
- 170.314(a)(10) Drug formulary checks
- 170.314(a)(11) Smoking status
- 170.314(a)(15) Patient-specific education resources
- 170.314(a)(17) Inpatient setting only—advance directives
- 170.314(d)(5) Automatic log-off
- 170.314(d)(8) Integrity
- 170.314(d)(9) Optional—accounting of disclosures
- 170.314(f)(1) Immunization information
- 170.314(f)(2) Transmission to immunization registries



2014 Edition Draft Test Method Recommendations – Wave 1 Recommendations

Wave 1
(14 Test Procedures)

Wave 2
(7 Test Procedures)

Wave 3
(6 Test Procedures)

Wave 4
(9 Test Procedures)

Recommendations

Computerized provider order entry

- Although an order change can be accomplished by cancelling an order and entering a new one, we recommend that the criterion allows the user to change an existing order without cancellation
- Recommend listing medication by generic name in addition to brand or trade name

Vital signs, BMI, and growth charts

- Recommend changing the growth charts test data, so the EHR will plot a chart for a late pediatric patient, not an adult. Although the CMS meaningful use objective's age range is 0-20-years-old, growth is usually complete between 16-18-years-old. (This is reflected in test procedures)
- *Stage 3: Recommend lowering the upper age boundary for plotting of growth charts*



2014 Edition Draft Test Method Recommendations – Wave 1 Recommendations

Wave 1
(14 Test Procedures)

Wave 2
(7 Test Procedures)

Wave 3
(6 Test Procedures)

Wave 4
(9 Test Procedures)

Recommendations

Smoking status

- Recommend clarifying that an EHR can map to the 8 smoking statuses (including Current every day smoker; Current some day smoker; Former smoker; Never smoker; Smoker, current status unknown; Unknown if ever smoked; Heavy tobacco smoker; Light tobacco smoker) based on a more granular level of data entered by the user (e.g. cigarettes per day, pack-years, etc.)

Patient-specific education resources

- Recommend clarifying that an EHR function, not Infobutton, selects a patient. (This is reflected in test procedures.)
- Recommend disallowing certification testing in which the three data categories (problem list, medication list, laboratory tests and values/results) can be tested in combination to identify education resources (i.e. this test would only allow the identification of resources based on one category at a time). (This is also reflected in test procedures.)



2014 Edition Draft Test Method Recommendations – Wave 1 Recommendations

Wave 1
(14 Test Procedures)

Wave 2
(7 Test Procedures)

Wave 3
(6 Test Procedures)

Wave 4
(9 Test Procedures)

Recommendations

Immunization information

- *Stage 3: The test procedure and data assume that the provider documenting an immunization is the provider who administered the immunization. Recommend allowing physicians the ability to record immunizations administered by other providers. Since this information would likely be supplied by the patient, the test data set would differ as the patient may not know the immunization specific information such as lot number, expiration date and/or manufacturer*



2014 Edition Draft Test Method Recommendations – Wave 2 Test Procedures



Wave 2

- 170.314(a)(3) Demographics
- 170.314(a)(9) Electronic notes
- 170.314(a)(13) Family health history
- 170.314(a)(14) Patient list creation
- 170.314(d)(6) Emergency access
- 170.314(f)(5) Ambulatory setting only—cancer case information
- 170.314(f)(6) Ambulatory setting only—transmission to cancer registries



2014 Edition Draft Test Method Recommendations – Wave 2 Recommendations



Recommendations

Demographics

- Recommend clarifying how to test that all languages, as defined by the standard, can be recorded within the EHR, if display of each language is not required

Preamble language:

- “...we are adopting ISO 639-2 constrained by ISO 639-1. This will constrain ISO 639-2 to only the active languages in ISO 639-1.”
- “...EHR technology is not required to display all the languages of the standard ...[b]ut, it must be capable of recording...all of the languages in the standard.”
- *Stage 3: Recommend capturing birthplace in future iterations of this certification criterion*

Family health history

- *Stage 3: Recommend accounting for adopted individuals in future iterations of this certification criterion*



2014 Edition Draft Test Method Recommendations – Wave 3 Test Procedures



Wave 3

- 170.314(a)(2) Drug-drug, drug-allergy interaction checks
- 170.314(a)(8) Clinical decision support
- 170.314(a)(12) Image results
- 170.314(a)(16) Inpatient setting only—electronic medication administration record
- 170.314(b)(4) Clinical information reconciliation
- 170.314(e)(2) Ambulatory setting only—clinical summary



2014 Edition Draft Test Method Recommendations – Wave 3 Recommendations



Recommendations

Drug-drug, drug-allergy interaction checks

- Agree that the test procedure should include CPOE as described in the certification criterion

Criterion language: “Interventions. Before a medication order is completed and acted upon during CPOE, interventions must automatically and electronically indicate to a user drug-drug and drug-allergy contraindication based on patient's medication list and medication allergy list.”

Clinical decision support

- Recommend that demographics and vital signs be tested in combination with the other listed data elements, as the test procedure allows, to trigger an intervention.



2014 Edition Draft Test Method Recommendations – Wave 3 Recommendations



Recommendations

Image results

- Recommend clarifying that the vendor can determine the format/structure for images and results test data (e.g. DICOM is permitted but not required)
- Recommend clarifying how to test that the image and results are “complete and accurate” (i.e. clarify definition of “complete and accurate”)

Electronic medication administration record

- Recommend clarifying how assistive technology can/will be used and requiring that the test be directly observable by the tester. Recommend defining acceptable methods in which a tester can/will observe the use of assistive technology during the certification testing process (i.e. ensuring a “real scenario” in a test environment)
- Recommend clarifying specifically how all the rights will be tested especially right route



2014 Edition Draft Test Method Recommendations – Wave 3 Recommendations



Recommendations

Clinical summary

- Recommend clarifying if historical data (e.g. vital signs) should be included in the clinical summary
- Recommend clarifying the Care Plan Section as it does not align with the certification criterion (e.g. the criterion describes the care plan as a narrative of goals and instructions; however, the test data defines specific elements with structured data including LOINC, SNOMED CT and CPT codes) (Reflected in test procedures.)
- General: Recommend industry support to assist with C-CDA adoption. This could include an on-going forum, led by an ONC or industry group, where vendors and users can continue to improve and enhance the adoption of C-CDA throughout its evolution
- *Stage 3: Recommend allowing a user to import individual elements of a C-CDA into an EHR*
- *Stage 3: Recommend including past history (e.g. surgical, illnesses, etc.) in clinical summary and the C-CDA*



2014 Edition Draft Test Method Recommendations – Wave 4 Test Procedures



Wave 4

- 170.314(b)(7) Data portability
- 170.314(d)(1) Authentication, access control, and authorization
- 170.314(d)(2) Auditable events and tamper-resistance
- 170.314(d)(3) Audit reports
- 170.314(d)(4) Amendments
- 170.314(d)(7) End-user device encryption
- 170.314(e)(3) Ambulatory setting only—secure messaging
- 170.314(f)(3) Transmission to public health agencies—syndromic surveillance
- 170.314(g)(3) Safety-enhanced design



2014 Edition Draft Test Method Recommendations – Wave 4 Recommendations



Recommendations

Data portability

- Recommend not certifying for the severity of medication allergy. Note that this also applies to the Transitions of care certification criterion. (Reflected in test procedures.)



2014 Edition Draft Test Method Recommendations – Wave 4 Recommendations



Recommendations

Transmission to public health agencies – syndromic health

- General: The testing should mimic a “real scenario” in a testing environment; however, the testing will be limited by the ability of the public health agency (or testing representation of this agency, such as a test tool) to receive the data
- *Stage 3: Recommend exploring transport standards or facilities specific to syndromic surveillance*



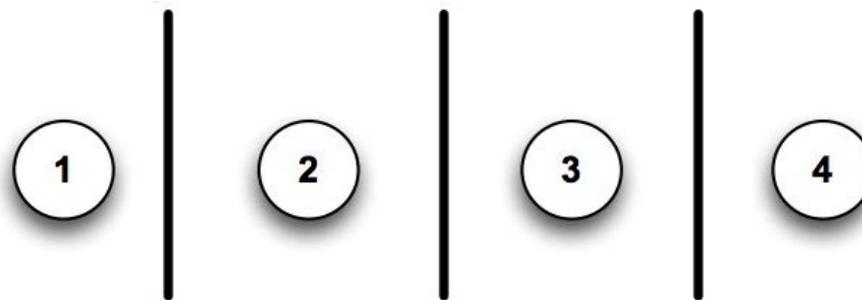
2014 Edition Test Scenario Development



Test Scenarios Development – Unit Based Testing

- Minimum requirement
- Independent tests
- Individual test data and results
- Individual test procedures/scripts
- Currently employed for the 2011 Edition Test Method

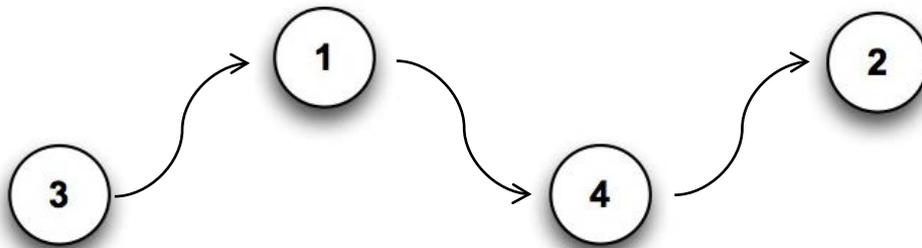
Unit Based Testing



Test Scenarios Development – Scenario Based Testing

- Alternative to unit based testing
- Dependent tests
- Dependent test data and results
- Threaded test procedures/scripts form a scenario
- Can remove individual test from sequence

Scenario Based Testing



If test 1 is not applicable...



Test Scenarios Development – Approach

Approach

- Reflects a typical clinical workflow in multiple care settings
- Allows persistence of data elements (i.e. model for data threading)
- Maintains testing flexibility (e.g. add/remove “unit test”)

Process

Types



Test Scenarios Development – Process

Approach

- Reflects a typical clinical workflow in multiple care settings
- Allows persistence of data elements (i.e. model for data threading)
- Maintains testing flexibility (e.g. add/remove “unit test”)

Process

- Develop clinically plausible workflow
- Initial development based on 2011 Edition Certification Criteria
- Reevaluate against the 2014 Edition Certification Criteria

Types



Test Scenarios Development – Types

Approach

- Reflects a typical clinical workflow in multiple care settings
- Allows persistence of data elements (i.e. model for data threading)
- Maintains testing flexibility (e.g. add/remove “unit test”)

Process

- Develop clinically plausible workflow
- Initial development based on 2011 Edition Certification Criteria
- Reevaluate against the 2014 Edition Certification Criteria

Types

- Medication Management
- Outpatient
- Emergency Department
- Inpatient



Next Steps



Next Steps

- Test Scenarios
 - Develop more specific test scenarios (e.g. interoperability, CQMs)
 - Develop test scenario scripts
 - Develop test scenario data
 - Implement early 2013
- Stage 3 Meaningful Use
 - Distribute IWG assignment among the workgroup
 - Develop feedback and recommendations
 - Consider recommendation for asynchronous adoption of standards
 - Deliver feedback and recommendations to HITSC in January 2013
- Public Hearing
 - Schedule public hearing to solicit feedback on the progress of Stage 2 Meaningful Use implementation
 - Conduct in February 2013

