

Real World Testing 2022 Test Plan

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Developer Name: Nth Technologies, Inc.

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Real World Test Plan Changes

Challenges faced during testing

Key challenges necessitating changes to the test plans included a small userbase exacerbated by all customers using nAbleMD 5.0c either not participating in government insurances or utilizing the low-volume exception to MIPS/QPP participation, or accepting Medicare payment penalties as opposed to the labor of fully utilizing the tested functions of the software.

Changes made to the Test Plan

Because of low utilization, it was necessary to modify several test plans to confirm the operation of the software. These tests and modifications are detailed here:

- Transition of Care Testing – Outbound. Changes affected testing for:
 - § 170.315(b)(7) – Security Tags – Summary of Care Send.
 - § 170.315(h)(1) – Direct Project
Reason: no utilization of Direct Project transmission due to extra steps required of the practice. Practices not participating in MIPS did not see the value of utilizing this feature, especially when they felt that the Transfer of Care Summary was limited in the information that could be incorporated. Likewise, the practice did not utilize the Security Tags feature for any patient chart during the year.
Change: In order to demonstrate the functionality of Security Tags and Direct Project, the practice generated a transfer of care record for a test patient utilizing the DS4P Security Tag functionality and uploaded it to the Edge Testing Tool C-CDA R2.1 Validator for 2015 Edition for validation of the Direct communication capability and the C-CDA document format. Additionally the clinic was encouraged to utilize the Direct functionality to transmit a C-CDA document to a referred provider and receive acknowledgement of receipt from that provider.
- Transition of Care Testing – Inbound. A change affected testing for:
 - § 170.315(b)(8) – Security Tags – Summary of Care Receive
Reason: No clinic received C-CDA documents containing DS4P Security Tags
Change: In order to demonstrate the functionality of Security Tags, a C-CDA was generated by the Edge Testing Tool C-CDA R2.1 Validator for 2015 edition containing an ambulatory record and was imported to a test patient by the clinic and reconciled successfully.
- Clinical Quality Measures. A change affected testing for:
 - § 170.315(c)(1) – Clinical quality measures (CQMs) – record and export
 - § 170.315(c)(2) – Clinical quality measures (CQMs) – import and calculate
 - § 170.315(c)(3) – Clinical quality measures (CQMs) – report
Reason: Not all measures were used by all providers at all clinics, so a mix of providers were used to collect data for as many measures as possible. One measure (CMS146v10) had no patient matching the initial population during the year of 2022 at the clinics being monitored
Change: For CMS146v10, a practice was guided on generating a test patient record that would be in the patient population and Numerator for the measure in order to demonstrate that the quality measure was properly calculated and reported.

Withdrawn Products

The nAbleMD version 5.0c was withdrawn at the end of the year (12/31/2022) due to the Cures edition certification and deployment of nAbleMD version 6.0c. All testing was performed on the 5.0c version of the software and is the only version of the software deployed during 2022.

Standards Updates

No SVAP or USCDI standards updates were made for nAbleMD 5.0c during 2022. The standards deployed at the onset of 2022 remained in place until the release of nAbleMD version 6.0c at the end of 2022 (deployed 12/31/2022).

Transition of Care Testing – Outbound

Criteria Tested

This test covers the following criteria related to the transition of patient care out of the practice:

- § 170.315(b)(1) – Transitions of Care
- § 170.315(b)(7) – Security Tags – Summary of Care Send.
- § 170.315(b)(9) – Care Plan
- § 170.315(h)(1) – Direct Project

Test Method

The provider documents a referral to another provider in the patient's chart, then creates and transmits a Transfer of Care CDA document to the provider the patient is referred to, in a Direct message. The system automatically validates the CDA document during the creation process. Direct Messaging utilizes the relied-upon Surescripts Clinical Direct Messaging interface.

Modification

To ensure that a Transfer of Care record could be developed utilizing Security Tags, the practice was guided on creating a test patient with a restricted chart that would generate a C-CDA document utilizing the DS4P Release 1 profile. This document was then tested using Direct Transmission to the Edge Test tool.

Metrics Collected

Denominator: Total number of documented referrals to other providers: 1781

Numerator 1: Total number of referrals to other providers where a CDA document was created: 63

Numerator 2: Total number of referrals to other providers where a CDA document containing Security Tags was created: 1

Numerator 3: Total number of referrals to other providers where a Care Plan was included in the CDA: 63

Numerator 4: Total number of referrals to other providers where the CDA was transmitted to the provider via Direct Message: 1

Expected Results

The metrics collected in the numerators demonstrate the practice's ability to use the four criteria over the course of the test period.

>50% of referrals have a CDA document created for the patient

<10% of the referrals will have Security Tags as they are rarely used

>10% of referrals will have a Care Plan included in the CDA document

>50% of referrals will be transmitted by Direct Message

Actual Results/Outcome

Practice engagement with both C-CDA creation process and transmission did not meet our expectations. During discussions with practices, we found several causes leading towards this. One such cause was staff turnover as clinics did not have new employees trained on the features by the vendor, instead expecting new employees to learn from previous employees. After providing additional training materials to the clinics, utilization improved slightly, however the clinics reported that they did not feel that they needed to go through the extra steps required to transmit the records since they were not participating in MIPS and did not feel that there was enough benefit to transmitting the Transfer of Care record to another provider. In light of this we are looking to improve the workflow for Direct Message communication and are working with a practice that is interested in increasing their usage of the feature to test new workflow ideas and improvements with the goal of significantly improving utilization of these features.

Key Milestones

Data collected from a primary ambulatory care setting from 1/1/2022-12/31/2022. Security Tag testing performed 10/3/2022. Reporting data retrieved from the practice database January 2023.

Transition of Care Testing – Inbound

Criteria Tested

This test covers the following criteria related to the transition of patient care into the practice and receiving clinical data from an external provider:

- § 170.315(b)(1) – Transitions of Care
- § 170.315(b)(2) – Clinical information reconciliation and incorporation
- § 170.315(b)(8) – Security Tags – Summary of Care Receive
- § 170.315(h)(1) – Direct Project

Test Method

Practice will receive and incorporate incoming patient Transfer of Care records into the patient's record. Records can be received either via Direct message or another communication method (e.g. thumb-drive). Direct Messaging utilizes the relied-upon Surescripts Clinical Direct Messaging interface.

Modification

In order to test the ability to receive Security Tags, the Edge Testing Tool C-CDA R2.1 Validator for 2015 Edition was used to generate a sample ambulatory C-CDA file which was then incorporated by into a test patient record by the practice

Metrics Collected

Denominator A: Number of CDA documents received from outside providers: 8

Numerator A1: Number of CDA documents received where reconciliation and incorporation has taken place: 5

Numerator A2: Number of CDA documents received via Direct message: 7

Denominator B: Number of CDA documents received with Security Tags present: 1

Numerator B: Number of CDA documents with Security Tags where reconciliation and incorporation has taken place: 1

Expected Results

The metrics collected in the above numerators demonstrate the practice's ability to use the four criteria over the course of the test period.

>50% of received CDA documents has been reconciled and incorporated into the patient's chart

>50% of received CDA documents have been received via Direct message

>50% of received CDA documents with Security Tags have been reconciled and incorporated into the patient's chart

Actual Results/Outcome

As with sending C-CDA and utilizing Direct Messaging for sending, we determined that many of our users did not provide direct messaging addresses to colleagues for sending messages for the clinic to receive. After encouraging our customers to share their addresses and encourage their referring providers to utilize this feature, several C-CDA documents were received, and some were incorporated by the clinic, however the clinic raised issues that the reconciliation process was too manual and required too many steps to locate the C-CDA file from the inbox, assign it to the patient record, review, and incorporate the data, especially as the incorporation and reconciliation process only covered specific elements of the C-CDA. The clinics being reviewed reported that they preferred the patient complete their custom intake forms to collect more information such as family histories that are often more focused than what was provided in the C-CDA documents. As with the outbound communication testing, we are working with one of our customer clinics to improve the workflow for Direct Messaging and incorporation of results.

Key Milestones

Data collected from a specialist ambulatory care setting from 1/1/2022-12/31/2022. Security Tag testing performed 10/3/2022. Reporting data retrieved from the practice database January 2023.

Data Export Testing

Criteria Tested

This test covers the following criterion for exporting patient data from the EMR

- § 170.315(b)(6) – Data Export

Test Method

As this is not a normal occurrence in daily use of the software, Nth Technologies will request the monitored practice to periodically perform the data export in order to ensure that the practice is capable of performing the export.

Metrics Collected

Denominator: Total number of requested exports of the patient data: 8

Numerator: Total number of completed exports of the patient data: 8

Expected Results

The metric collected in the numerator demonstrates the practice's ability to use the criterion over the course of the test period.

100% of the data export requests were correctly processed without intervention by the vendor.

Actual Results/Outcome

The metric was met, largely in part due to the repeated encouragement by the vendor to utilize the function. The export file was generated automatically by the software without any other intervention by the vendor.

Key Milestones

Data collected from a primary ambulatory care setting from 1/1/2022-12/31/2022. Reporting data retrieved from the practice database January 2023.

Electronic Prescribing Testing

Criteria Tested

This test covers the following criterion for transmitting prescriptions to pharmacies.

- § 170.315(b)(3) – Electronic Prescribing

Test Method

The provider will use the relied-upon NewCropRx e-prescribing module to write prescriptions for the patients and either print or transmit the prescriptions electronically.

Metrics Collected

Denominator: Total number of prescriptions written by prescribers: 6740

Numerator: Total number of prescriptions transmitted electronically: 6713

Expected Results

The metric collected in the numerator demonstrates the practice's ability to use the criterion over the course of the test period.

>80% of prescriptions have been transmitted to pharmacies electronically

Actual Results/Outcome

The expected metric was met, indicating that the practice sent 99.5% of the prescriptions electronically. Logs indicated 26 of the remaining prescriptions were provided on paper and 1 transmitted by fax.

Key Milestones

Data collected from a primary ambulatory care setting from 1/1/2022-12/31/2022. Reporting data retrieved from the practice database January 2023.

Patient Engagement Testing

Criteria Tested

- § 170.315(e)(1) – View, download, and transmit to 3rd party

Test Method

The practice may send patients seen during the 2022 calendar year test period messages following their encounter reminding the patient that they can access the patient portal to receive clinical data from the practice. Patients can log into the portal and View, Download, or Transmit their data as either a structured or human readable CDA document. The Transmit functionality via Direct Messaging utilizes the relied-upon Surescripts Clinical Direct Messaging interface.

Metrics Collected

Denominator: Number of unique patients with encounters performed by the practice during the test period: 2574

Numerator 1: Number of patients who have Viewed or Downloaded either the structured or human readable summary information from the patient portal: 42

Numerator 2: Number of patients who have Transmitted their summary information to another provider via Direct, using the patient portal: 1

Expected Results

Patient engagement can be difficult for practices to encourage. The metrics collected in the numerators demonstrate both the patient's ability to View, Download and Transmit their records from the portal included in nAbleMD, as well as the benefit of sending reminders to the patients to do so.

Numerator 1: > 5% of patients have Viewed or Downloaded their summary information from the patient portal.

Numerator 2: < 5% of patients have Transmitted their summary information through the patient portal using a Direct message, as most patients are not familiar with this and will not have another provider's Direct address to transmit to.

Actual Results/Outcome

Patient engagement proved quite difficult to improve, with the clinic being able to encourage one patient to try the Transmit feature out, and only 1.6% of the patients utilizing the View and Download functionalities. As the integrated patient portal provides much of the data from the C-CDA file in a readily usable format, many patients may not have felt a need to use the C-CDA document to receive their information when they can review their medication or lab result history online with provider commentary, without utilizing the C-CDA functionality.

Key Milestones

Data collected from a primary ambulatory care setting from 1/1/2022-12/31/2022. Reporting data retrieved from the practice database January 2023.

Clinical Quality Measure Testing

Criteria Tested

- § 170.315(c)(1) – Clinical quality measures (CQMs) – record and export
- § 170.315(c)(2) – Clinical quality measures (CQMs) – import and calculate
- § 170.315(c)(3) – Clinical quality measures (CQMs) – report

Measures certified, updated to the version for reporting year 2022:

- CMS22v10: Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented
- CMS68v11: Documentation of Current Medications in the Medical Record
- CMS69v10: Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow -Up Plan
- CMS75v10: Children Who Have Dental Decay or Cavities
- CMS117v10: Childhood Immunization Status
- CMS122v10: Diabetes: Hemoglobin A1c (HbA1c) Poor Control (>9%)
- CMS125v10: Breast Cancer Screening
- CMS138v10: Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
- CMS146v10: Appropriate Testing for Children with Pharyngitis
- CMS147v11: Preventive Care and Screening: Influenza Immunization
- CMS155v10: Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents
- CMS165v10: Controlling High Blood Pressure
- CMS166v7: Use of Imaging Studies for Low Back Pain (NOTE: no longer reported)

Test Method

Practices were updated to the 2022 reporting year versions of each of the supported quality measures prior to the start of the year.

During documentation, providers will request calculation of Clinical Quality Measure data, including whether the patient is included in the Initial Population or not, and whether the patient meets, is excluded/excepted, or does not meet the measure.

Note that an alternate test method was used for the quality measure marked with a * below

Metrics Collected

For each measure utilized by the practice:

Denominator: Number of patients with Clinical Quality Measure data calculated where the patient is included in the Initial Population

Numerator: Number of patient records included in the associated CQM report generated by the practice.

Measure	Denominator	Numerator
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CMS22v10	71	71
CMS68v11	124	124
CMS69v10	72	72
CMS75v10	18	18
CMS117v10	1	1
CMS122v10	88	88
CMS125v10	7	7
CMS138v10	37	37
CMS146v10 *	1	1
CMS147v11	160	160
CMS155v10	14	14
CMS165v10	115	115
CMS166v7	5	5

Expected Results

For each measure, all of the encounters where the patient is included in the Initial Population will appear in a CQM report generated for the time range, which demonstrates the ability of the software to record the measure data, calculate the results and generate the appropriate report of the measure data.

Actual Results/Outcome

All quality measure calculations were able to be recorded and exported. As the year progressed it was noted that the time to export Year-To-Date records was increasing significantly and we plan to review and optimize the performance of these reports and QRDA extracts to ensure that they can be completed without timeouts even at larger practices.

Key Milestones

Data collected from a primary ambulatory care setting from 1/1/2022-12/31/2022, data retrieved from the practice database January 2023.

Immunization Registry Testing

Criteria Tested

- § 170.315(f)(1) – Transmission to immunization registries

Test Method

The practice will document immunizations performed at the practice in the patient’s chart. The automated communication system will transmit all records to the state registry and log the result of each communication to identify whether the result was accepted due to either a data entry error such as incorrect patient address records or other technical communication errors.

Metrics Collected

Denominator: Number of immunizations performed at the practice: 8100

Numerator: Number of immunizations performed at the practice with an acknowledgement indicating acceptance by the registry: 8100

Expected Results

The metric collected in the numerator demonstrates the practice's ability to use the criterion over the course of the test period.

>80% of the immunizations documented as being performed at the practice will be successfully reported to the state registry.

Actual Results/Outcome

Automated communication between nAbleMD and the state registry ensured that 100% of the immunizations performed at the practice were reported to the registry.

Key Milestones

Data collected from a pediatric ambulatory setting from 1/1/2022-12/31/2022, data retrieved from the practice database January 2023.

Health Care Survey Testing

Criteria Tested

- § 170.315(f)(7) – Transmission to public health agencies — health care surveys

Test Method

No customers utilized this functionality. Additionally, NHCS did not appear to provide any real-world testing support for this functionality. In lieu of this, a clinic was encouraged to generate a NHCS IG Version 1.2 Document using a test patient record and upload this document to the NIST validator provided by NHCS to confirm that it was accepted with no errors. The document and validation report were provided to Nth Technologies, Inc.

Metrics Collected

Denominator: Number of encounters meeting the criteria for reporting in survey data: 1

Numerator: Number of encounters reported in survey data: 1

Expected Results

All encounters meeting the criteria for reporting in survey data are reported.

Actual Results/Outcome

Testing demonstrated that the clinic could produce a valid NHCS IG Version 1.2 Document.

Key Milestones

Testing performed at a specialist ambulatory clinic 10/1/2022-12/31/2022

Application Access Testing

Criteria Tested

- § 170.315(g)(7) – Application access — patient selection
- § 170.315(g)(8) – Application access — data category request
- § 170.315(g)(9) – Application access — all data request

Test Method

Testing shall consist of receiving a request for Application Access, then measuring that patient data was successfully requested and received by the requested Application.

Metrics Collected

Denominator: Total number of Application Access requests: 1

Numerator 1: Total number of applications granted access to patient data: 1

Numerator 2: Total number of applications, that requested and received at least one patient record: 1

Expected Results

The metric collected in the numerator demonstrates the practice's ability to use the criteria over the course of the test period.

>50% of the applications requesting access to patient data receive access to the patient data.

>50% of the applications requesting access to patient data receive at least one requested patient record.

Actual Results/Outcome

Reviewing audit logs over multiple practices, one request for application access was received from one patient requesting data, and the audit log indicated that the patient was successful in receiving that data via the FHIR 2.0 API.

The choice of using a standard API such as FHIR proved to be useful even in the early stages of deployment of this standard. It is our hope that with more systems utilizing the FHIR standard, there will be more interest in using this to provide access to patient data.

Key Milestones

Data collected from a specialist ambulatory care setting from 1/1/2022-12/31/2022. Reporting data retrieved from the practice database January 2023.

Attestation

This Real World Testing result document is complete with all required elements, including measures that address all certification criteria and care settings. All information in this plan is up to date and fully addresses the health IT developer's Real World testing requirements.

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