REAL WORLD TESTING PLAN

GENERAL INFORMATION

Plan Report ID Number	20231128gsi
Developer Name	Genius Solutions Inc.
Product Name(s)	ehrTHOMAS
Version Number(s)	3
Certified Health IT	ehrTHOMAS
Product List (CHPL) ID(s)	15.05.05.2737.GENI.01.00.1.180802
Developer Real World Testing Plan Page URL	http://www.geniussolutions.com/ehrthomas-realworldtesting

JUSTIFICATION FOR REAL WORLD TESTING APPROACH

Genius Solutions chooses to test its only electronic medical record (EMR) product, ehrTHOMAS. We are selecting the settings of care that are representative of most Genius Solutions' clients. ehrTHOMAS was intended to work in ambulatory settings with most of the customers being eligible physicians of the quality payment program working as a solo practitioner up to working in a setting with 4-5 multiple providers.
Additional staff in the office that uses ehrTHOMAS ranges from one to 20 individuals, excluding the provider. The majority of our customer base is comprised of offices that practice Podiatry, Chiropractic, Mental Health and Internal Medicine. Participants to this testing will be selected based on the following:

- History utilizing Genius Solutions' products
- Granted permission to access and extract patient health information for testing purposes
- Connections to third parties and state registries
- Care setting

All testing would be done on the client's server or workstation. All testing participants must allow Genius Solutions to have full access to their system during the testing period. Each participant will know what type of information will be taken from their system for testing purposes.
Testing sessions with the testing participant and the moderator will be recorded to observe the actions of the user. All screen capturing recordings will be stored on an encrypted hard drive and deleted after the testing has been completed.

Our goal is to test the following measures and metrics outlined in this plan through three testing periods throughout the year. We believe that just testing with a participant once will not test on-going electronic health information exchange, interoperability with other applications and data

registries, and conformance to the technical file standards and code sets. We believe that testing ehrTHOMAS in real world situations three times a year will allow us to collect a sufficient amount of data to provide evidence of interoperability.

We are selecting the measures based on what is required for certification for the real world testing. The designing of the procedures is based on what we believe is an adequate testing protocol that can be performed with limited human and capital resources. The testing procedures were created with minimal interruption to client services and client workflow. Most data points are collected by the moderator and do not require the testing user's participation. The measures that do require user participation will be scheduled with a moderator.

Any type of test data or files that are needed for the testing measures will be extracted from another EMR and patient information will be modified for security purposes and pushed through a DataMotion portal. We have included the use of test patients in our measures as many of our clients are smaller offices that may not want to include certain functionality into their workflow. We ask our testing participants, at a minimum, to record and transmit test patient data to test for interoperability. We recommend that all offices attempt to use and send real patient data to demonstrate ehrTHOMAS interoperability in a real world setting.

In any situation where the testing moderator cannot communicate with a third party that is receiving our files, we would like to run all files through a file validator. We believe that this would be a good indicator that our system's files conform to the technical standards and code sets and be readily utilized in other applications and products.

STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI)

Standard (and version)	USCDI v1 for b1, b2, e1, and g9 170.204(a)(1) Web Content Accessibility Guidelines (WCAG) 2.1, June 05, 2018 (Level A Conformance) for e1
Updated certification criteria and associated product	b1, b2, e1, g9
Health IT Module CHPL ID	15.05.05.2737.GENI.01.00.1.180802
Method used for standard update	Cures Update for b1, b2, g9, SVAP e1
Date of ONC ACB notification	10/21/2022
Date of customer notification (SVAP only)	10/21/2022
Conformance measure	Receive Patient Health Information via Direct Messaging for b1 Incorporating Patient Health Information from Direct Messaging for b2 Send CCDs to the Portal for e1 Test API Connection: All Data Request for g9
USCDI updated certification criteria (and USCDI version)	b1, b2, e1, g9 USCDI version 1

MEASURES USED IN OVERALL APPROACH

DESCRIPTION OF MEASUREMENT/METRIC

Measurement/Metric	Description
Receive Patient Health Information via Direct Messaging	The user is to receive Clinical Care Documents (CCDs) via Direct Messaging. We hope to be able to utilize what the provider/user already has within their direct messaging inbox. If a CCD is not available, the Moderator of the testing will send a test patient directly to the provider through the DataMotion portal. The testing moderator should be able to easily identify the patient that the CCD refers to as well as all the sections within the CCD. The rate of successful viewing of the CCDs received, the rate of errors when receiving or viewing CCDs, and the number of complaints of CCDs not being received by the system will be recorded.
Incorporating Patient Health Information from Direct Messaging	When incorporating the patient's health information, the system should be able to match the CCD and the patient automatically. If there is a discrepancy with the patient demographic data, the user should be able to match the patient manually. Users are to select the data in which they want to incorporate. At minimum, we would like to have the patient's medication/allergy information incorporated into the patient's chart. If the testing user would like to import the patient's conditions, that will be acceptable. The rate of successful patient matching automatically, the rate of manual patient matching, the rate of successful incorporation of patient data, and the rate of errors when incorporating patient health information will be recorded
Prescribe a Medication	Genius Solution utilizes DrFirst as its primary eRX vendor for our providers to maintain their medication and allergy lists and send prescriptions electronically. The user is to create and send a new prescription to be sent to a pharmacy. Once completed, the moderator is to check within ehrTHOMAS to see the prescription's status and other information that may pertain to that medication order. The moderator is to verify that the SIG that is inputted into DrFirst matches the SIG that is loaded into ehrTHOMAS. The rate of successful prescription transmissions, the rate of

	errors encountered when submitting prescriptions, the SIG match rate, and complaints that prescriptions were not received will be recorded.
Record and Create a Care Plan	The user is to record a patient's care plan to include the patient's goals, health concerns, health status evaluation and outcomes, and interventions. The user is strongly encouraged to create care plans for real patients; however, the creation of a care plan for at least one fake patient during the testing period is required for testing if real patients are not utilized. A CCD will be generated for the moderator to submit for validation to ensure data integrity and conformance. The rate of successful CCD exports, errors encountered while exporting the CCD and the rate of successful CCD validations will be recorded.
Generate a Clinical Quality Measure (CQM) Report	Participants for this measure will include any client that would like a courtesy (PI) Promoting Interoperability or CQM check from our EHR support representatives. The support staff will follow this measurement's description and obtain data for analysis. The user is to use the information inside their EhrThomas database to generate a CQM report and export a QRDA file. The QRDA file will be validated with a QRDA validator to ensure data integrity and conformance. The rate of successful generation of CQM reports, errors encountered while generating the CQM report, any complaints from the testing participant regarding their CQM measures, the rate of successful exports of the QRDA file, the rate of errors encountered while exporting the QRDA file, and the rate of successful QRDA validations will be recorded.
Send CCDs to the Portal	The user is to send a CCD to a connected patient to the Genius Portal. The user is encouraged to send health information to real patients, but for testing purposes, they must send at least one CCD for a test patient. The moderator will confirm from the test patient that the CCD: ● is in readable format when viewing the CCD, ● includes the provider's name and office contact information, ● and can be downloaded and viewed in a readable format.5 Some of the CCDs that are exported to be sent to the portal will be validated with a CCD validator to ensure integrity and conformance by the moderator. The rate of successful CCD export for transmission, the rate of errors while sending CCDs to the portal, the rate of viewable and downloadable test patient CCDs, the rate of successfully

	validated CCDs, and the number of complaints of not receiving a CCD or issues reading or downloading will be recorded.
Export Immunization Records and Requesting Immunization History	The user is to create a list of clinical summaries for a specific date range within ehrTHOMAS. The moderator is to validate the number of clinical summaries that were created through a visual inspection. The moderator will upload all of the clinical summaries through a CCD validator to ensure data integrity and conformance. The rate of successful exports, the rate of errors encountered while exporting and the rate of successfully validated CCDs will be recorded.
Export Syndromic Surveillance Records	The user is to export syndromic surveillance information to their state's registry. At this time, Genius Solutions does not have any clients that are utilizing this function of the program. How this data point will be collected will be based on our customer's participation in the syndromic surveillance registry and their cooperation participating in the real world testing. Two approaches have been formulated: Approach (A): If the testing participant is actively sending HL7 files to a syndromic surveillance registry, the user is to create a batch of HL7 syndromic surveillance files. The HL7 files will be validated within a HL7 validator to ensure its compliance with the standard and contain all the necessary message segments. If the registry is capable of sending ACK messages, the user is to obtain that message within ehrTHOMAS. If ACK messages are not being sent, the moderator will reach out to the registry to confirm submission of the data. The rate of successful file creations and transmission, the rate of validated HL7 files, and errors occurred while transmitting will be recorded. Approach (B): If the testing participant is not actively sending HL7 syndromic surveillance registry, the testing office will create a batch of HL7 syndromic surveillance files from ehrTHOMAS for the moderator to be validated within a HL7 validator. The rate of successful file creations, the rate of valid HL7 files, and the errors occurred while creating a file will be recorded.
Test API Connection: Patient Selection	At this time, Genius Solutions does not have any clients or third parties that are utilizing ehrAPI. How this data point will be collected will be based on our customer or third party's participation. Two approaches have been formulated: Approach (A):

	If the testing user has a third party software that utilizes ehrAPI, the moderator will work directly with the third party software vendor to request at least one real patient from ehrTHOMAS and ehrTHOMAS should return a patient token. The moderator will verify the accuracy of the patient identification information being exchanged. The rate of accurate patient identification exchange, the rate of errors during the testing exchange, and complaints or issues from the third party vendor during the testing period will be recorded. Approach (B): If the testing user does not have a third party software that utilizes ehrAPI, then the moderator will apply an API tester application 9 created by Genius Solutions on the server. This API tester application will utilize the API connections to request and receive at least one real patient's identification token from ehrTHOMAS. The moderator will record the successful token exchange between the API tester and ehrTHOMAS. The rate of accurate patient identification exchange and the rate of errors during the exchange will be recorded.
Test API Connection: All Data Request	At this time, Genius Solutions does not have any clients or third parties that are utilizing the ehrTHOMAS API. How this data point will be collected will be based on our customer or third party's participation. Two approaches have been formulated: Approach (A): If the testing user has a third party software that utilizes ehrTHOMAS API, the moderator will work directly with the third party software 10 vendor to validate that all the data for at least one real patient is being pulled from ehrTHOMAS. The moderator will verify with the third party vendor the accuracy of the returned patient health information. If a CCD has been created out of the data returned, the moderator will obtain the CCD from the third party vendor and validate the file through a CCD validator. The rate of accurate and successful returns of patient data, and the rate of validated CCDs, the rate of errors during transmission, and complaints from the third party vendor during the testing period will be recorded. Approach (B): If the testing user does not have a third party software that

	utilizes the ehrTHOMAS API, then the moderator will apply an API tester created by Genius Solutions on the server. This API validator will utilize the API connections and extract all the data for the same patient in Test API Connection: Patient Selection, Approach (B). The moderator is to confirm that the patient data returned is accurate. A CCD will be exported out of the API tester to be validated by a CCD validator. The rate of accurate and successful returns of patient data, and the rate of validated CCDs, and the rate of errors during transmission will be recorded.
Test API Connection for Patient/Population Services	Allows the developers to pass calls and returns complete information for a single patient and population services with proper access and authentication. Developers are required to obtain a security clearance, server and database access information from the data owner in order to gain access to the database. PHI access also requires patient authorization to generate an authentication token with an expiration date. If the testing user has a third party software that utilizes ehrAPI, the moderator will work directly with the third party software vendor to request at least one real patient from ehrTHOMAS and ehrTHOMAS should return a patient token. The moderator will verify the accuracy of the patient identification information being exchanged.

ASSOCIATED CERTIFICATION CRITERIA

Measurement/Metric	Associated Certification Criteria	Relied Upon Software (if applicable)
Receive Patient Health Information via Direct Messaging	170.315 (b)(1): Transitions of Care	DataMotion, Backbeach Software C-CDA Viewer or C-CDA Scorecard
Incorporating Patient Health Information from Direct Messaging	170.315 (b)(2): Clinical Information Reconciliation and Incorporation	DrFirst Rcopia and Backbeach Software C-CDA Viewer
Prescribe a Medication	170.315 (b)(3): Electronic Prescribing	DrFirst (Rcopia)
Record and Create a Care Plan	170.315 (b)(9): Care Plan	Backbeach Software C-CDA Viewer
Generate a Clinical Quality Measure (CQM) Report	170.315 (c)(1): Clinical Quality Measures - Record and Export 170.315 (c)(3): Clinical Quality Measures - Report	
Send CCDs to the Portal	170.315(e)(1) View, download, and transmit to 3rd party	Genius Portal
Export Immunization Records and Requesting Immunization History	170.315 (f)(1): Transmission to Immunization Registries	
Export Syndromic Surveillance Records	170.315 (f)(2): Transmission to Public Health Agencies - Syndromic Surveillance	
Test API Connection: Patient Selection	170.315(g)(7) Application access - patient selection	
Test API Connection: All Data Request	170.315(g)(9) Application access - all data request	
Test API Connection for Patient/Population Services	170.315(g)(10) Standardized API for patient and population services (Cures Update)	

JUSTIFICATION FOR SELECTED MEASUREMNET/METRIC

Measurement/Metric	Justification
Receive Patient Health Information via Direct Messaging	This measure showcases an integral part of real world interoperability where patient information is exchanged from one office to another. We believe that many of our ambulatory practices, especially specialty offices will get patient referrals or follow ups from other offices. It is important that the appropriate information is being received from other offices for the practice to understand the health of their patients to provide excellent care. We specifically focused on the patient health information that is received through our Direct Messaging to test the functionality of our direct messaging partner, DataMotion Direct, within ehrTHOMAS. This is the main channel of patient data exchange and is the relied upon software for this functionality. DataMotion Direct is certified for 170.315 (h)(2): Direct Project, Edge Protocol, and XDR/XDM. ehrTHOMAS users must utilize DataMotion Direct to meet the base criteria for a 2015 Edition Certification. At minimum we ask our users to receive at least one CCD for a test patient during each testing period as a safety net to ensure appropriate data exchange. We do believe that many of the selected participants are recipients of patient health information from outside providers; however, it is possible that no real life patient data is received during the testing period. We included the number of complaints the user might have when receiving a CCD from another provider since it would be unknown to the user and the moderator that a CCD was transmitted to their system. This data point will illuminate any problems with the data exchange
Incorporating Patient Health Information from Direct Messaging	This measure is another integral part of real world interoperability where patient information is integrated directly into the EMR program. We understand the importance for providers to maintain up to date information about their patient's health information to provide the best possible care. We are using this measure in conjunction with the Receive Patient Health Information via Direct Messaging measure as these two measures are interrelated to one another; the information derived for this measure cannot occur without information from the previous measure. Similar to the Receive Patient Health Information via Direct Messaging measure, we ask our users to incorporate at least one

	CCD into a test patient account during the test period as a safety net in case the testing provider or office does not receive any outside CCDs during the testing period. Patient matching is an important aspect for our providers. We have observed that offices do not want to spend time searching for a patient to match data to. There can be a lot of user errors when matching a patient which can cause significant problems with patient care. We want to ensure that our capability to automatically match patients accurately and the testing users' ability to manually match the patient from an outside CCD to their patient's chart is working as intended. We chose to only update the medication and the allergies as a mandatory requirement for this measure since some offices may only want to include conditions that are applicable to their specialty within their charts.
Prescribe a Medication	This measure showcases an integral part of real world interoperability where patient information is exchanged from one office to another. We believe that many of our ambulatory practices, especially specialty offices will get patient referrals or follow ups from other offices. It is important that the appropriate information is being received from other offices for the practice to understand the health of their patients to provide excellent care. We specifically focused on the patient health information that is received through our Direct Messaging to test the functionality of our direct messaging partner, DataMotion Direct, within ehrTHOMAS. This is the main channel of patient data exchange and is the relied upon software for this functionality. DataMotion Direct is certified for 170.315 (h)(2): Direct Project, Edge Protocol, and XDR/XDM. ehrTHOMAS users must utilize DataMotion Direct to meet the base criteria for a 2015 Edition Certification. At minimum we ask our users to receive at least one CCD for a test patient during each testing period as a safety net to ensure appropriate data exchange. We do believe that many of the selected participants are recipients of patient health information from outside providers. However, it is possible that no real life patient data is received during the testing period. We included the number of complaints the user might have when receiving a CCD from another provider since it would be unknown to the user and the moderator that a CCD was transmitted to their system. This data point will illuminate any problems with the data exchange. * (Excluding: Chiropractic)
Record and Create a Care	Creating a detailed post-visit patient care plan is critical for patients

Plan	to improve or maintain their current health status. It is important for members of the patient's care team to acknowledge and support the efforts of other providers and to encourage the patient to follow their doctor's recommendations. Incorporating this information to a CCD eases the transmission of this data to patients and providers. . Since writing this Real World Testing plan, we have many offices that are not utilizing this functionality to its fullest capability as it might interfere with their patient flow in the office. We have incorporated how we expect this functionality to work in real world scenarios into our testing plans with the full understanding that this initial plan may not be how it is actually used, if used at all. We have included the testing for at least one patient in the plan to meet the completion for the testing in case our participants are not utilizing this feature on real patients. We hope that we can learn more about our users' interactions to develop a more robust and integrated feature. We have included a data point for the validation of the CCD to ensure conformity with the certification criteria and with the technical standards for the CCD. We believe that conforming to the technical standards would be a high indicator that the CCDs exported from ehrTHOMAS will be utilized in other EMRs or for any patient portals.
Generate a Clinical Quality Measure (CQM) Report	Many Genius Solutions' clients are participating in a quality payment program for both Medicare and Medicaid. Each program requires physicians to submit clinical quality measures and upload those numbers to the appropriate channels. Normally, our support staff will call and assist clients who are participating in those programs to run their CQM reports throughout the year and export QRDA files at the end of the year for attestation submission. We have modified the participants to include any client that calls our support technicians for Promoting Interoperability and CQM checks to ease the moderator's workload and to obtain as much data from all of our customers as possible. The generation of CQM reports is extremely important for our clients in the quality payment program. Meeting a certain threshold for each measure ensures that the provider is delivering effective patient-centered care. We are measuring both the successful generation of the CQM report and QRDA file to ensure that our program meets the certification criteria. The inclusion of the validation of the QRDA as a data point is to ensure conformity with the certification standards.

	We have included a data point for complaints from the testing participant to illuminate any issues that might spawn from collecting the CQM data within the EMR. The data points associated with this measure will provide evidence of ongoing Maintenance of Certification for Clinical Quality Measures: Report and Clinical Quality Measures: record and export.
Send CCDs to the Portal	This measure is another integral part of real world interoperability where patient information is integrated directly into the EMR program. We understand the importance for providers to maintain up to date information about their patient's health information to provide the best possible care. We are using this measure in conjunction with the Receive Patient Health Information via Direct Messaging measure as these two measures are interrelated to one another; the information derived for this measure cannot occur without information from the previous measure. Similar to the Receive Patient Health Information via Direct Messaging measure, we ask our users to incorporate at least one CCD into a test patient account during the test period as a safety net in case the testing provider or office does not receive any outside CCDs during the testing period. Patient matching is an important aspect for our providers. We have observed that offices do not want to spend time searching for a patient to match data to. There can be a lot of user errors when matching a patient which can cause significant problems with patient care. We want to ensure that our capability to automatically match patients accurately and the testing users' ability to manually match the patient from an outside CCD to their patient's chart is working as intended. We chose to only update the medication and the allergies as a mandatory requirement for this measure since some offices may only want to include conditions that are applicable to their specialty within their charts.
Export Immunization Records and Requesting Immunization History	Some of our clients are required to send immunization records to their state. We also understand the importance for providers to send and receive their patient's immunization schedules from an Immunization Information System to educate them appropriately. To ensure interoperability between the state and the providers, we are testing our capability of exporting patient immunization records to the different immunization registries we work with. At the time of writing this real world testing plan, we are currently sending production files to the state of Michigan (MCIR) and

	Florida (FLU Shots). We would like to limit the testing participants to those that already have an established connection. If Genius Solutions has a client that would like to send immunization records to another state registry, we would like to test that during the next real world testing period. This will minimize the workload burden for the development and moderating team during the real world testing period. Additionally, this will allow the moderating and testing team to focus on the active data exchange connections. Not all participants will be utilized for this measurement since they may not perform immunizations within their office and it is outside the scope of their specialty. Only practices that have an active connection to an immunization registry will be utilized for this measure. We are including a data matching data point in our testing plans to verify that the information that we are entering into ehrTHOMAS matches with what appears in the immunization registry. We will be asking the office to log into 15 their state's registry website to determine the accuracy of our system's EHI exchange functionality. We have a small number of customers that are participating in sending production QBP query messages to receive patient immunization history. We are concerned that these customers may not want to participate in our testing as it can be time consuming for their busy office. Therefore, we formulated two approaches for testing the query message. Approach (A) is testing the current production transmission of the QBP messages, while Approach (B) is testing the system's capability to prepare QBP messages effectively for real-time transmission. Genius Solutions would prefer to use Approach (A) for its testing, however, it will be dependent on the recruitment of the participants by the testing deadline. The HL7 immunization message and HL7 QBP query message file will be processed through an HL7 validator to ensure that the file meets the technical specifications. Additionally, it will also check to ensure that the file conforms to the appropriate code sets. * (Excluding: Mental Health, and Podiatry)
Export Syndromic Surveillance Records	Genius Solutions understands the need to have real time data transmitted to public health agencies to detect outbreaks of viruses, bacteria, and other biological agents. At the time of writing this real world testing plan, there are no ehrTHOMAS customers that are sending production syndromic surveillance files to a state registry. Not all of our customers are

	suitable to submit syndromic surveillance. Additionally, ehrTHOMAS is not marketed to specialties that would send syndromic information. We have formulated two approaches based on customer participation with the real world testing on how we should collect data for this measure. Approach (A) is testing an active production connection between ehrTHOMAS and a state Syndromic Surveillance registry, while Approach (B) tests the program's capability to prepare syndromic HL7 files effectively for future real-time transmission. Approach (A) is Genius Solutions' preferred method for testing. Approach (B) is to be used if there is not an active syndromic surveillance connection after our participation deadline. Our testing plan includes how we expect this functionality to work in a real world scenario. With this being our first real world testing plan, we understand that our initial composition of the measure may not test enough aspects of the electronic health information exchange between our program and a registry. We hope that we can modify our future test plans based on the learning experiences and outcomes of this testing. The exported syndromic HL7 message will be passed through a HL7 validator to ensure that the file conforms to the technical specifications. * (Excluding: Mental Health, and Podiatry)
Test API Connection: Patient Selection Test API Connection: All Data Request Test API Connection for Patient/Population Service	Genius Solutions understands the industry's need for flexibility when it comes to patients accessing their health information. An intrinsic property of an API is its functionality of exchanging electronic information to another application; therefore, It is important that the ehrAPI has the capability to 16 allow third parties to extract precise patient health information from ehrTHOMAS. At the time of writing this real world testing plan, there are no ehrTHOMAS customers utilizing a third party service that requires the ehrAPI. We have formulated two approaches based on our customers' and vendors' participation and utilization of the ehrAPI. Approach (A) is testing an active API connection between ehrTHOMAS and the third party application requesting patient information. Approach (B) is testing the ehrAPI functionality to be used in future third party application connections. Approach (A) is Genius Solutions' preferred approach, but its usage will be determined by the utilization of the ehrAPI before the approach deadline. We have included a data point for complaints from the third party vendors during the testing period since it may be unknown to the user and the moderator that issues might arise from

	patient health information returns that have not been observed or tested during the testing period. The data collected in Test API Connection, Approach (B) will be done through an API testing application that will be developed in-house. This API testing application will contain the functionality to appropriately gather data for testing the Patient Selection and Data Category Request, and All Data Request measurements. Approach (B) will validate our expectations of how our API will work in the real world, but we understand that changes may be needed as testing may illuminate improvements to develop a stronger and robust API. Any CCDs created utilizing the ehrAPI will be validated to ensure that the files meet the technical standards and therefore the interoperability between ehrTHOMAS and other applications.

CARE SETTING(S)

Care Setting	Justification
Ambulatory Care Centers	EhrTHOMAS was developed to be used with ambulatory practices which are primarily Genius Solutions' EHR customer base. These practices using the system consist of practices such as Podiatry, Chiropractic, Mental Health, Ophthalmology, Pain Management, Internal Medicine, Physical Therapy, Family Practice, Endocrinology and ENT; and will all be subject to testing with the exception of certain measures that exclude some of these specialties. Most practitioners in this space are eligible to participate in quality payment programs that require a certified EHR. We would like to continue to develop a program that will aid our customers in exchanging patient health information more efficiently. By testing with some of our customers, it will provide us with useful data to streamline the workflow while testing the technical capabilities of our software. We understand that not every specialty will be used for every measure within this testing plan as the measure may not be within their scope of practice. We foresee the following specialties to have adjusted measurements: ● Podiatry and Mental Health ○ Excluded from Submit and Receive Patient Immunization Information and Submit and Receive Syndromic Surveillance Information measures. ● Chiropractic ○ Excluded from Prescribe a Medication, Submit and Receive Patient Immunization Information and Submit, Receive Syndromic Surveillance Information measures.

EXPECTED OUTCOMES

Measurement/Metric	Expected Outcomes
Receive Patient Health Information via Direct Messaging	Since we are trying to not use synthetic data with this measure, we expect that all providers will be receiving a CCD from other providers on a regular basis. The moderator will inspect the provider's direct messaging inbox and observe the number of CCDs received from other providers. Errors experienced while accessing or viewing the CCD will be recorded. We expect that the CCD will be easily viewable and to be completed without errors. The moderator should be able to identify at least transitioning provider and contact information, the patient's name, DOB, the sections within the CCD, and the encounter diagnosis. This will determine that ehrTHOMAS is able to view CCDs in a human readable format. We also expect that ehrTHOMAS will be able to identify the errors within any invalid C-CDA documents received from an outside party. The testing provider or office will report all complaints of not receiving a CCD to the moderator during the testing period. We do not expect to receive any complaints from the testing provider or office. These data points will demonstrate on-going Maintenance of Certification for Transitions of Care as well as on-going EHI exchange functionality.
Incorporating Patient Health Information from Direct Messaging	The moderator should be observing the actions of the user throughout the testing period. The testing user should have a patient that matches the CCD that is received in the Receive Patient Health Information via Direct Messaging measure. We expect ehrTHOMAS to match the CCD to the patient's chart automatically most of the time with limited user interaction. The moderator will record the number of successful automatic patient matching. If the patient in the CCD does not match with a patient in ehrTHOMAS, we can expect that this is due to the patient being a new patient to the practice and has not been entered into the system yet or that there is user error entering the patient's information on either the other provider's or the testing provider's end. We believe that this can happen sometimes and the moderator will record the number of times the testing user must manually match a patient. The moderator will also record the number of errors that occur

	while matching the patient's CCD to the patient's chart. We do not expect to have any errors in patient matching. It is expected that the information within the CCD appropriately parses within ehrTHOMAS. We expect that the user can see the patient's active data within their medication list, allergy list and problem list as well as the new data from the CCD. We expect the user to know how to reconcile CCDs within ehrTHOMAS and update the medications/allergies in DrFirst and the patient's diagnoses directly into ehrTHOMAS based on what is revealed in the CCD. The moderator will record any errors incorporating patient health information. The collected data points are used to demonstrate on-going functionality of incorporating patient data from other health providers and to test the system's conformity to the Clinical Information Reconciliation and Incorporation certification.
Prescribe a Medication	The moderator should be observing the actions of the user throughout the testing period. We expect the user to know how to prescribe a medication within DrFirst. We expect that all prescribed medication should be created and transmitted to the pharmacy through Rcopia with no errors. If there are issues with the transmission of a prescription, we expect the cause to be due to an outage in the Rcopia health information network. The moderator should be able to verify that the prescription information is pulled down from Rcopia with the appropriate medication, SIG, frequency, and RxStatus and record the SIG match. We expect a 100% SIG match rate. The testing provider or office will report all complaints of the pharmacy not receiving prescriptions or the patient reporting missing prescriptions at the pharmacy to the moderator during the testing period. We expect that the complaints of missing prescriptions are due to user error. These data points will demonstrate on-going Maintenance of Certification for Electronic Prescribing as well as on-going EHI exchange functionality
Record and Create a Care Plan	The moderator should be observing the actions of the user throughout the testing period. We do not expect this measure to be performed in the users' everyday workflow. As stated in our Justification section, we expect many of our customers not utilizing this functionality to its fullest capability. We expect to train our offices on how to perform this measure prior to testing. After the user exports a CCD, we expect the CCD to contain the "Goals" and "Health Concerns" sections. These sections will be verified by the moderator and be reported as a successful export.

	The moderator will also report any errors that occur while exporting the CCD. We expect that the CCDs being exported out of ehrTHOMAS will meet all the standards of specifications when being checked through the C-CDA validator. The moderator will report successful validations. The collected data points will provide evidence of on-going Maintenance of Certification for Care Plans and conformance to the technical standards of the C-CDA. The rate of errors encountered and the rate of success will be tracked and trended over time.
Generate a Clinical Quality Measure (CQM) Report	Genius Solutions expects that the users participating in the research are quality payment program providers, meaning that they are actively participating in either the Merit-based Incentive Payment System or the Medicaid EHR Incentive Program. We expect that the CQM report will be generated successfully without any errors. We expect little to no complaints from the testing participants regarding the CQM measures. If there are complaints regarding patients not showing up in the CQM report, it is likely that they are user error rather than system error. We also expect the QRDA file to export successfully and with no errors. All the measures within the QRDA file are expected to conform to the technical standards and produce no errors while validating the file. The data points associated with this measure will provide evidence of ongoing Maintenance of Certification for Clinical Quality Measures: Report and Clinical Quality Measures: record and export.
Send CCDs to the Portal	Genius Solutions does not expect that all patients of the testing participant will opt into creating a portal. Therefore, not all CCDs will be transmitted to the patient's portal. Of the patients who do have a portal account with the testing participant, we expect that all CCDs will be transmitted successfully with all the contents of the CCD. The moderator should be observing the actions of the user during the sending of a CCD to the portal. The moderator will verify that the CCD for the test patient has been transferred successfully to the test portal through a visual inspection. We expect to read the CCDs in a human readable form. We expect that the CCDs can be downloaded and read in a human readable form. The moderator will run a handful of real patient CCDs through a CCD validator and record the rate of valid CCDs. During the validation, we expect that the CCDs will conform to the technical standards. The testing provider or office will report all complaints from the patient regarding missing patient health records or issues viewing or downloading their health information to the moderator. We expect little to no complaints from patients not receiving their

	patient health information. Similarly, we expect little to no complaints from patients not being able to view or download their health information. All the data points collected for this measure will provide evidence of on-going Maintenance of Certification for View, download, and transmit to 3rd party and on-going EHI exchange. It will also verify that the CCDs transmitted to the portal conforms to the technical standards.
Export Immunization Records and Requesting Immunization History	The moderator should be observing the actions of the user throughout the testing period. The moderator will also pull the appropriate HL7 files that are required for validation from the testing participant's system. We expect that the HL7 immunization messages will export successfully with no errors. We expect the files to be transmitted to MCIR and/or FLU Shots successfully with no issues. If there is an issue with the transmission of the message, we expect that to be on the registry's end. The transmitted immunization information is expected to match what was exported from ehrTHOMAS and what is being displayed by the registry. Any registry that sends ACK messages are expected to be imported into ehrTHOMAS successfully with no errors. We expect ehrTHOMAS to output a QBP message with no errors. If applicable, the QBP message will be transmitted and ehrTHOMAS will retrieve the immunization information successfully and without error. The immunization HL7 messages and the QBP messages are expected to conform to the current technical specifications and will be verified through the HL7 validator. We also expect files to have appropriate standard code sets for the CVX and the NDC. The moderator will record successful validations. The collected data points will provide evidence of on-going Maintenance of Certification for Transmission to Immunization Registries, on-going EHI exchange, and conformance to the technical standards of the HL7 and the code sets for the CVX and NDC.
Export Syndromic Surveillance Records	The moderator will be collecting the syndromic HL7 messages from the testing participant's system. We are expecting that we will be following Approach (B) for our testing since our product is not marketed to specialties that would be utilizing this functionality. We believe that ehrTHOMAS can demonstrate its capability to send real-time HL7 messages to future live production sites if the HL7 files being exported conforms to the technical standards. The HL7 messages are expected to be exported and transmitted successfully and without errors. If there are any issues with transmission, we expect that to come from the registry's end. The moderator will confirm the transmission to the registry and record the data. We expect the HL7 messages to conform to the technical standards and produce no errors. The moderator will record the successful validations.

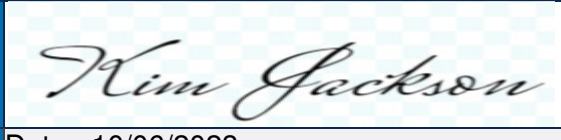
	The collected data points are used to demonstrate on-going functionality of the system's electronic health information exchange and to test the system's conformity to the Transmission to Public Health Agencies - Syndromic Surveillance certification and the HL7 technical standards.
Test API Connection: Patient Selection	The moderator will work directly with the third party vendor or the API tester to collect the data for this measure. We expect that the ehrAPI will return a patient token that appropriately matches a patient within ehrTHOMAS. We do not expect any errors when receiving or sending the patient token through the API. If working with a third party vendor, we do not expect complaints regarding receiving a patient token.
Test API Connection: All Data Request	The moderator will work directly with the third party vendor or the API tester to collect the data for this measure. We expect the ehrAPI will return all the patient data for the specific patient requested. We do not expect any issues or errors when returning the data. If a CCD is created, we expect the CCD to be valid and conform to the technical specifications for the file.
Test API Connection for Patient/Population Services	The moderator will work directly with the third party vendor or the API tester to collect the data for this measure. We expect the ehrAPI will return all the patient data for the specific patient requested. We do not expect any issues or errors when returning the data. If a CCD is created, we expect the CCD to be valid and conform to the technical specifications for the file. Allows the developers to pass calls and returns complete information for a single patient and population services with proper access and authentication. Developers are required to obtain a security clearance, server and database access information from the data owner in order to gain access to the database. PHI access also requires patient authorization to generate an authentication token with an expiration date.

SCHEDULE OF KEY MILESTONES

Key Milestone	Care Setting	Date/Timeframe
Generate CQM reports and Exporting a QRDA Files	Ambulatory Care Settings	January 1st, 2024 to December 31st, 2024
Test software used for the Test API Connection measure.		Complete by February 27th, 2024
Completion of recruiting test participants for Real World Testing	Ambulatory Care Settings	February 27th, 2024
First testing period. Data will be collected and recorded.	Ambulatory Care Settings	March 1st to April 1st, 2024
Second testing period. Data will be collected and recorded.	Ambulatory Care Settings	July 1st to August 1st, 2024
Third testing period. Data will be collected and recorded.	Ambulatory Care Settings	November 1st to December 1st, 2024
Analyzing the results and creation of final report		December 1st, 2024 to December 31st, 2024

ATTESTATION

This Real World Testing plan 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.

Authorized Representative Name	Kim Jackson
Authorized Representative Email	kim1@geniussolutions.com
Authorized Representative Phone	586-751-9080
Authorized Representative Signature	
Date	Date: 10/06/2023