GEHRIMED v4.3 Real World Testing Plan Results

2024 Measures

Prepared for

Drummond

Netsmart

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General Information

Plan Report ID Number: [For ONC-Authorized Certification Body use only]

Developer Name: Netsmart Technologies

Product Name(s): GEHRIMED

Version Number(s): 4.3

Certified Health IT Product List (CHPL) ID(s): 15.04.04.2816.gEHR.04.03.1.221227

Developer Real World Testing Page URL: https://www.ntst.com/lp/certifications

Justification for Real World Testing Approach

At this time, the GEHRIMED product is marketed towards the geriatric post-acute, long term care setting. For this reason, the GEHRIMED Real World Testing plan applied to this specialty care setting.

GEHRIMED is certified to a wide variety of Real-World Testing (RWT) criteria. Netsmart identified use cases and measures for the criteria the GEHRIMED product is certified to which falls within the RWT scope.

The following care coordination criteria was be tested, § 170.315(b)(1) Transitions of care § 170.315(b)(2) Clinical information reconciliation and incorporation § 170.315(b)(6) Data export. The product does support the patient engagement criteria § 170.315(e)(1) View, download, and transmit to 3rd party. Last, the product included the following Application Programming Interfaces (APIs) criteria § 170.315(g)(7) Application access — patient selection § 170.315(g)(9) Application access — all data requests § 170.315(g)(10) Standardized API for patient and population services (Cures Update).

Standards Updates (SVAP and USCDI)

The Netsmart GEHRIMED certified product is not and has not participated in the Standards Version Advancement Process prior to August 31, 2024. Nor is the GEHRIMED certified product updated to the new United States Core Data for Interoperability (USCDI) version 1. Therefore, Netsmart does not have any data to include in this section of the Real-World Testing plan. Netsmart plans to update to the USCDI version 1 and other updates specified in the 21st Century Cures Act in accordance with the required deadlines.

Standard (and version)	Not applicable
Updated certification criteria and associated product	Not applicable
CHPL Product Number	Not applicable
Method used for standard	Not applicable

Update	
Date of ONC-ACB notification	Not applicable
Date of customer notification (SVAP only)	Not applicable
Conformance measure	Not applicable
USCDI updated certification (USCDI version)	Not applicable

Care Setting(s)

GEHRIMED supports the deployment and tracking of documentation within and outside of geriatric post-acute, long term care setting. Most clients using certified technology are doing so in long-term care settings.

Overall Expected Outcomes

Real World Testing results will demonstrate that GEHRIMED is conformant to the following certification criteria:

- §170.315(b)(1) – Transitions of Care
- §170.315(b)(2) – Clinical Information Reconciliation and Incorporation
- §170.315(b)(6) – Data Export
- §170.315(e)(1) – View, Download, and Transmit to 3rd Party
- §170.315(g)(7) – Application Access – Patient Selection
- §170.315(g)(9) – Application Access- All Data Request
- §170.315(g)(10) – Standardized API for patient and population services (Cures Update)

Relied Upon or Third-Party Software

Relied upon software is typically third-party software that is not developed by the Certified Health IT Developer presenting its health IT for testing and certification. Per the definition provided by the ONC, GEHRIMED does currently utilize the Updox portal as a third-party software for providing direct messaging solution to our users. GEHRIMED users access Updox functionality to receive and send CCDAs as a PDF attachment. GEHRIMED also leverages Dynamic Health IT, CQM Solution for or c(1)-c(4) criteria.

Schedule of Key Milestones

Key Milestones	Date/Timeframe

Submit Real World Testing Plan documentation to Drummond.	**November 1, 2023**
Begin Collection of information as laid out by the plan for the period.	**January 1, 2024**
Follow-up with providers and authorized representatives on a regular basis to understand any issues arising with the data collection.	**Quarterly, 2024**
End of Real-World Testing period/final collection of all data for analysis.	**December 31, 2024**
Analysis and report creation.	**January 15, 2025**
Submit Real World Testing report to ACB (per their instructions)	**February 3, 2025**

Measures Used in Overall Approach

§170.315(b)(1) – Transitions of Care

Description of measurement/metric

The following measures demonstrated the ability to send and receive transitions of care/referral summaries across multiple protocols and/or networks.

Measurement/Metric	Description
Number of CCDAs sent for a % population over a time period. **Numerator**: Total number of CCDAs sent; **Denominator**: Total population	Care coordination –transitions of care was evaluated by analyzing a current active population using the CCDA 'send' functionality over the assessed population. This addressed CCDA sending as well as CCDA creation.
Number of CCDAs received for a % population over a time period. **Numerator**: Total number of CCDAs Received; **Denominator**: Total Population.	Care coordination –transitions of care was evaluated by analyzing a current active population using the CCDA 'receive' functionality over the assessed population.
Number of CCDAs Displayed for a % population over a time period. **Numerator**: Total number of CCDAs Displayed; **Denominator**: Total Population.	Display and reconciliation are congruent in our HealthIT and depend on the user to determine what would be reconciled. We observed the number of CCDAs displayed over time for our population, and subsequently incorporated.

Associated Certification criteria

§170.315(b)(1) Transitions of Care	*(i)(A&B) Send and receive transition of care/referral summaries via edge protocol*
	(ii) Validate and display
	(iii) Create

Justification for selected measurement/metric

The measurements selected demonstrated that referral messages can successfully be exchanged with external organizations using CCDA send and receive functionality in GEHRIMED.

Test Methodology

We looked at log data to determine the number of CCDAs sent/created, received/reconciled over our user base.

Care Setting(s)

Care Setting	Justification
The user population for this functionality is in a post-acute, long term care setting.	This is the care setting in which GEHRIMED electronic health record technology is used; this is the care setting where these modules were evaluated.

Expected Outcomes

Measurement/Metric	Expected Outcome
Number of CCDAs sent for a % population over a time period.	Based on database evaluation, we expected to see CCDAs sent without error for the population assessed, over time; Several items happened automatically in the backend as a result of successful CCDA send, pursuant to the standards set for the certified modules including sending via Direct Edge Protocols, HL7 compliance, USCDI compliance depending on the certified modality used, and the manner used.
Number of CCDAs received for a % population over a time period.	Assessing logs, we expected to see CCDAs received are incorporated for the identified denominator population. Receipt / incorporation occurs at the same time. Several items happen automatically in the backend as a result of

	successful CCDA receive, pursuant to the standards set for the certified modules including sending via Direct Edge Protocols, HL7 compliance, USCDI compliance depending on the certified modality used, and the manner used.
Number of CCDAs Displayed for a % population over a time period.	We expected this to be close in number to the number of CCDAs received. Upon evaluation of database logs received, we expected incorporation / reconciliation for CCDAs over the denominator population over the timeframe evaluated. When CCDAs are received, they are displayed for incorporation simultaneously. Several items happened automatically in the backend as a result of successful CCDA display, pursuant to the standards set for the certified modules including sending via Direct Edge Protocols, HL7 compliance, USCDI compliance depending on the certified modality used, and the manner used.

§170.315(b)(2) – Clinical Information Reconciliation and Incorporation

Description of measurement/metric

The measure demonstrated the certified products ability to capture, reconcile, and incorporate clinical information within the client systems as needed.

Measurement/Metric	Description
Number of CCDAs Reconciled for a % population over a time period. Numerator: Total number of CCDAs Reconciled; Denominator: Total population.	We observed reconciled CCDAs as a function of total number of CCDAs received to evaluate real world functionality of this module.

Associated Certification criteria

§ 170.315 (b)(2) Clinical information and reconciliation and incorporation	*(i) General requirements*
	(ii) Correct Patient
	(iii)Reconciliation

	(iv)System verification

Justification for selected measurement/metric

Clinical Information Reconciliation may be completed multiple times in a given period on a single patient. This measure demonstrated the volume from both an end-user perspective (Numerator), and a Patient perspective (Denominator).

Test Methodology

In order to evaluate clinical information reconciliation and incorporation pursuant to 170.315(b)(2) we analyzed log data to evaluate CCDA data received/incorporated. Other items related to the standards occur in the backend automatically (patient matching, correct pt., system verification).

Care setting(s)

Care Setting	Justification
The user population for this functionality is in a post-acute, long term care setting.	This is the care setting in which GEHRIMED electronic health record technology is used; this is the care setting where these modules were evaluated.

Expected Outcomes

Measurement/Metric	Expected Outcome
Number of CCDAs Reconciled for a % population over a time period. **Numerator**: Total Number of CCDAs Reconciled **Denominator**: Total Population.	This is expected to be congruent with the number of CCDAs received / displayed as this functionality is congruent in the process of receiving, reviewing, reconcile. We expected to see a similar number for CCDAs received over the denominator population over time. Several items happened automatically in the backend as a result of successful CCDA reconcile, pursuant to the standards set for the certified modules including sending via Direct Edge Protocols, HL7 compliance, USCDI compliance depending on the certified modality used, and the manner used.

§170.315(b)(6) – Data Export

Description of Measurement/Metric

This measure demonstrated the end user's ability to create export summaries on an as needed basis.

Measurement/Metric	Description
CCDA creation: Numerator: Number of CCDAs created Denominator: Total population	This allowed us to evaluate CCDA creation for users in the real world over evaluated time.

Associated Certification Criteria

§ 170.315 (b)(6) Data Export Not updated to 2015 edition Cures Update criteria.	*(i)General requirements for export summary configuration*
	§ 170.315 (b)(6)(ii)
	§ 170.315 (b)(6)(iii)

Justification for Selected Measurement/Metric

The measurement selected demonstrated providers can generate a CCD for given criteria for a patient.

Test Methodology

We assessed the creation and export of CCDAs pursuant to standards outlined in 170.315(b)(6) for user creation of CCDAs per general export summary requirements; this was also done via log evaluation to analyze CCDAs sent for the evaluated population.

Log files provided audit of CCDAs generated and user access. Database tables within the certified product application contain a record of all CCDA requests made.

Care Setting(s)

Care Setting	Justification
The user population for this functionality is in a post-acute, long term care setting.	This is the care setting in which GEHRIMED electronic health record technology is used; this is the care setting where these modules were evaluated.

Expected Outcomes

Measurement/Metric	Expected Outcome
CCDA creation: Number of CCDAs created for the target population over time	We expected this to be close to the number of CCDAs sent for care coordination, transitions of care, other provider information as the functionality for creation is generally tied with CCDA send. This was evaluated via database logs for the identified population over time. Several items happened automatically in the backend as a result of successful CCDA creation, pursuant to the standards set for the certified modules including sending via Direct Edge Protocols, HL7 compliance, USCDI compliance depending on the certified modality used, and the manner used.

Results

Measurement Period	Associated Criterion	Relied Upon Software	Outcomes							Challenges Encountered (if applicable)
			No. of Groups	No. of CCDAs					Total Population	
				Downloaded	Sent	Received	Viewed	Reconciled		
10/1/2024-10/31/2024	170.315 (b)(1)(b)(2)(b)(6)	(b)(1) Updox	471	863	61	135	309	1	6,793,127	N/A
11/1/2024-11/30/2024			474	462	55	75	228	4	6,947,361	
12/1/2024-12/31/2024			478	461	58	337	252	3	7,095,319	

§170.315(e)(1) – View, Download, and Transmit to 3rd Party

Description of Measurement/Metric

The measures identified encompassed the Number of Views, downloads, and transmission of patient health data using the patient portal functionality.

Measurement/Metric	Description
Numerator: Number of 'views' by patients of their health data **Denominator**: Total population	Patient Engagement–Patient engagement in their health data by viewing their data per standards related to 170.315(e)(1) was reviewed from the logs / database to determine usage over time for the identified denominator.
Numerator: Number of 'downloads' by patients of their health data Denominator: Total population	Patient Engagement –Patient engagement in their health data by downloading their data per standards related to 170.315(e)(1) was reviewed

	from the database to determine usage over time for the identified denominator.

Associated Certification Criteria

§ 170.315 (e)(1) View, Download, and Transmit to 3rd Party Not updated to 2015 edition Cures Update criteria.	*§170.315(e)(i)(A)*
	§170.315(e)(i)(B)
	§170.315(e)(i)(C)

Justification for Selected Measurement/Metric

The measurements selected show that patient health data can be viewed and downloaded by patients and that they can successfully transmit to external parties.

Test Methodology

Count of distinct patient views and downloads of their health data via patient portal was reviewed from the logs / database to determine usage over time for the identified denominator.

Transmissions is a functionality not used by our user base after evaluation. In consulting with our ONC-ACB, we found that as 'view / download' was used, additional test data would not be needed to be created for 'transmit' functionality.

Care Setting(s)

Care Setting	Justification
The user population for this functionality is in a post-acute, long term care setting.	This is the care setting in which GEHRIMED electronic health record technology is used; this is the care setting where these modules was evaluated.

Expected Outcomes

Measurement/Metric	Expected Outcome
Number of 'views' by patients of their health data over an identified population denominator	Expected validation of normal viewing of patient data over time. We looked at views over time and addressed any issues, if applicable, while monitoring. Validating view activity automatically verifies 170.205(a)(1)/(2) compliance as well as 107.205(a)(4)/(5)compliance based on how data

	view is setup, as well as CCDS / USCDI / HL7 standards as outlined in 170.213, 170.205(a)(4)/(5).
Number of 'downloads' by patients of their health data over an identified population denominator.	Expected validation of normal downloading of patient data in human readable format with the data they selected. We expected the number of download attempts to be congruent with downloads for a patient's data. Downloading automatically validates functionality of associated certified criteria related to 170.205(a)(4)/(5).

Results

Measurement Period	Associated Criterion	Relied Upon Software	Outcomes				Challenges Encountered (if applicable)
			No. of Groups	Patient health data via Patient Portal		Total Population	
				Downloaded	Viewed		
10/1/2024-10/31/2024	170.315 (e) (1)	N/A	388	12	36	1,213,460	N/A
11/1/2024-11/30/2024			391	10	33	1,306,895	
12/1/2024-12/31/2024			395	16	30	1,388,259	

§170.315(g)(7) – Application Access – Patient Selection

Description of measurement/metric

Measurement/Metric	Description
Number of test patient ID requests, return of ID or token over test population	API patient selection. This evaluated the functionality of our certified module to address patient id requests over our API. Successful completion of the API request validates associated certification criteria outlined in §170.315 (g)(7).

Associated Certification criteria

§ 170.315 (g)(7) Application Access – Patient Selection	*§170.315(g)(7)(i)*
	§170.315(g)(7)(ii)

Justification for selected measurement/metric

We evaluated test real world scenarios of how this functionality provided a variety of search parameters to support identification of a patient for subsequent searches. This measure demonstrated that the search capability is available and utilized.

Test Methodology

After evaluating our API use, currently API calls are made for billing access. However, none of our clients use the API points needed to meet the requirements. As such, we used test data / test scenarios like when first certified to evaluate real world functionality. This allowed us to evaluate real world functionality of patient ID request and return of ID / token data.

Care Setting(s)

Care Setting	Justification
The user population for this functionality is in a post-acute, long term care setting.	This is the care setting in which GEHRIMED electronic health record technology is used; this is the care setting where these modules were evaluated.

Expected Outcomes

Measurement/Metric	Expected Outcome
Number of patient ID requests, return of ID or token over test population	Expected validation of normal test patient ID selection and return of ID/Token per standards.

Results

Measurement Period	Associated Criterion	Relied Upon Software	Service Name	Request URL	No. of PatientIDs	No. of Requests Made	Challenges Encountered (if applicable)
01/01/2024-12/31/2024	170.315 (g) (7)	N/A	PatientService	https://service.gehrimed.com/PatientService/Patient/Match	8,298	**29,945**	N/A

§170.315(g)(9) – Application Access- All Data Request

Description of measurement/metric

Measurement/Metric	Description
Number of All Test Data requests (per CCDS) over a population.	API all data request. This allowed evaluation of patient ‘all data’ selection for API exchange of patient information. Successful completion of the API request validates associated certification criteria outlined in §170.315 (g)(9).

Associated Certification criteria

§ 170.315 (g)(9) Application Access – All Data Request Not updated to 2015 edition Cures Update criteria.	*§170.315(g)(9)(i)* *§170.315(g)(9)(ii)*

Justification for selected measurement/metric

We had planned to create a test real world scenario for the functionality to provide a generated CCD upon request based on the supplied parameters. This measure was intended to demonstrate that the capability is available and utilized, as none of our clients use this functionality.

Test Methodology

After evaluating our API use, currently API calls are made for billing access. However, none of our clients use the API points needed to meet the requirements. As such, we had planned to use test data / test scenarios similar to when first certified to evaluate real world functionality. We had planned to evaluate scenarios of requesting / receiving All Data for a client per the regulations, over our API.

Care Setting(s)

Care Setting	Justification
The user population for this functionality is in a post-acute, long term care setting.	This is the care setting in which GEHRIMED electronic health record technology is used; this is the care setting where these modules were evaluated.

Expected Outcomes

Measurement/Metric	Expected Outcome
Number of All Data requests (per CCDS) over a population.	Ability to select All Category Data per CCDS for patients selected were evaluated in a test environment. The certified CCD endpoint would provide the generated CCD as XML.

Results

Measurement Period	Associated Criterion	Relied Upon Software	Service Name	Request URL	No. of PatientIDs	No. of Requests Made	Challenges Encountered (if applicable)
08/1/2024-08/31/2024	170.315(g)(9)	N/A	Patient Service	https://service.gehrimed.com/PatientService/Patient/GetAllData	1	5	Had to use test data to mee the requirements of this criteria

§170.315(g)(10) – Standardized API for patient and population services (Cures Update)

Description of measurement/metric

This measure will demonstrate utilization of the certified FHIR R4 document reference resource to generate or retrieve CCDs.

- Number of successful CCD retrievals using either the certified CCD or the Certified FHIR R4 DocumentReference endpoints within a 90-day period.

Associated Certification criteria

§ 170.315 (g)(10) Standardized API for patient and population services	*§170.315(g)(10)(i)*
	§170.315(g)(10)(ii)
	§170.315(g)(10)(iii)
	§170.315(g)(10)(iv)
	§170.315(g)(10)(v)
	§170.315(g)(10)(vi)
	§170.315(g)(10)(vii)
	§170.315(g)(10)(viii)

Justification for selected measurement/metric

The certified CCD and the certified FHIR R4 DocumentReference endpoint will provide a generated CCD upon request based on the supplied parameters. This measure will demonstrate that the capability is available and can be utilized.

Test Methodology

Internal monitoring tools will provide utilization over the specified time period.
In addition, the FHIR R4 endpoints provide patient data upon request based on the selected resource and the supplied parameters. This measure demonstrates the capability to utilize our FHIR API is available should clients opt to do so in the future. We conduct quarterly testing on this functionality utilizing the Inferno Testing Tool.

Care Setting(s)

Care Setting	Justification
The user population for this functionality is in a post-acute, long term care setting.	This is the care setting in which GEHRIMED electronic health record technology is used; this is the care setting where these modules will be evaluated. We will pull data to test over a 90-day time period.

Expected Outcomes

We expect to see within the 90-day period utilization of the certified CCD and/or certified FHIR R4 DocumentReference endpoints to generate a CCD. The certified CCD endpoint will provide the generated CCD as XML. The certified FHIR R4 DocumentReference will provide the CCD as a Base64 encoded string attachment.

Results

Measurement Period	Associated Criterion	Relied Upon Software	No. of Patients	Successful Requests to the FHIR R4 Endpoint	Challenges Encountered (if applicable)
09/01/2024-12/31/2024	**170.315(g)(10)**	**N/A**	5	5	**In lieu of applicable production data, conducted FHIR API Inferno test for the specified FHIR API endpoints, and was successful for DocumentReference.**

Outcomes Explained

A query on historical audit logs was performed for a 30-day time period. We have zero adoption of this criterion for clients utilizing the GEHRIMED product. To demonstrate functionality, we conducted testing utilizing ASTP/ONC Inferno Testing Tool against our Netsmart QA environment. Utilizing our QA scope, we were able to successfully meet the DocumentReference endpoint, as outlined in our test.

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.

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Date: 01/31/2025