



REAL WORLD TESTING RESULTS

GENERAL INFORMATION

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

Developer Name: EyeMD EMR Healthcare Systems, Inc.

Product Name(s): EyeMD Electronic Medical Records

Version Number(s): Version 2

Certified Health IT Product List (CHPL) Product Number(s): 15.04.2725.EyeM.02.00.1.190501

Developer Real World Testing Plan Page URL: <https://www.eyemdemr.com/mips/>

Developer Real World Testing Results Report Page URL [if different from above]:

SUMMARY OF TESTING METHODS AND KEY FINDINGS

The test plan focused on capturing and documenting the number of instances that certified capability was successfully utilized in the real world. In instances where no evidence existed due to zero adoption of a certified capability or the inability to capture evidence of successful use for other reasons, we demonstrated the required certified capability in a semi-controlled setting as close to a “real world” implementation as possible.

This test was developed to demonstrate that the certified capabilities have been successfully deployed for providers to use at their discretion in live settings.

We used a 3-fold approach to demonstrate successful real-world implementations.

- Adoption Rate
- Summative Testing
- Interactive Testing

Adoption rate was used to determine if/when certified capability was being used in the real world and to help identify differences in care settings. Evidence of high rates of implementation and usage indicate (but don't by themselves prove) a certified capability's usefulness and practical value. Evidence of low rates of implementation and usage might indicate a potential problem, of which there could be several different causes.

Summative assessments were used to measure which certified actions were performed at the conclusion of a given time period. These were conducted by generating reports and examining audit logs from within the certified health IT module to help demonstrate the frequency of actions within the given time frame, and where possible, whether those actions were successful or unsuccessful. High success rates should be an indicator of a successful implementation of a given certified capability in a real-world setting.

Interactive testing was used to demonstrate conformance to requirements where the adoption rate of a given certified capability was zero and was used to demonstrate ongoing compliance with updated standards and code sets (SVAP). Interactive tests required a live test as opposed to examining historical usage statistics. The goal is to allow a user to demonstrate the certified Health IT module being used in a way consistent with their own practice or care setting.

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

- Yes, I have products certified with voluntary SVAP or USCDI standards. (If yes, please complete the table below.)
- No, none of my products include these voluntary standards.

Standard (and version)	USCDI Version 1
Updated certification criteria and associated product	No new updates to USCDI for 2023 Real-World Testing for EyeMD EMR Version 2.0
CHPL Product Number	15.04.2725.EyeM.02.00.1.190501
Conformance measure	

Care Setting

Care Setting	Justification
Ambulatory Vision Care Providers (MDs, DOs, and ODs)	Being a specialty specific EMR, EyeMD EMR is expected to work the same across all ambulatory care settings for both medical-based practices as well as refractive/optical practices.

Metrics and Outcomes

ADOPTION RATES

The following metrics are applicable to all criteria and all care settings. These metrics were not used directly to demonstrate interoperability or conformance to certification criteria. They were primarily used to help determine the participants that will be in scope for this evaluation. They can also aid with the justification for other metrics by providing additional context (i.e., extremely low adoption rates for certain certified capabilities will necessitate a different approach to testing).

Metric	Description
Number of licensed installs/users of EHR <ul style="list-style-type: none"> The definition of a “license” is dependent upon the model used (e.g., total number of systems, total number of seats per license, etc.) 	2,466 Providers
Number of active installs/users of EHR	1,781 Providers

The following metrics are applicable to all criteria that are licensed separately from the base license and all care settings.

Metric	Description
Certified capabilities that are licensed separately	E-Prescribing
Number of installs/users who licensed a certified capability	1,338 providers utilizing E-Prescribing
Number of installs/users that have used the certified capability in the preceding 365 days	1,338 providers who have utilized E-Prescribing

SUMMATIVE ASSESSMENT METRICS

The following metrics were measured by viewing audit logs and reporting systems available to track the behavior of the certified Health IT module during a given time frame. All metrics were designed to reflect the core elements of the criteria, demonstrate interoperability, and demonstrate the success rate of the certified capability being used. In most cases we elected to record these metrics over a 90-day period to reflect the reporting periods typically required for compliance with the federal incentive programs.

The continued measurable use of certified capabilities will provide implicit evidence of successful implementation of the required certified capability. This is especially meaningful in cases where interoperability with outside systems is demonstrated. In cases where it is not possible to determine “success” via an explicit confirmation by a receiving system, success will be defined as a transmission was made where no error was received from the destination system or its intermediaries. Additionally, reviewed internal customer and vendor issue tracking systems for reports of failures or unsatisfactory performance in the field.

Associated Criterion	Metric	Outcomes	Challenges Encountered/Analysis
170.315(b)(1) Transitions of care	Over a 90-day period: 1) Number of CCDAs created 2) Number of CCDAs sent via edge protocols 3) Number of CCDAs received via edge protocols	1) 3,980 2) 3,980 3) 11,430	Our expectation was that there will be moderate utilization by providers with a high success rate. If providers created a CCDA, it was because it was being sent, so success rate of creating and sending CCDAs via edge protocols was high, as expected. The practices received a far higher amount of CCDAs then sent out, which is representative of the specialty.

<p>170.315(b)(2) Clinical information reconciliation and incorporation</p>	<p>Over a 90-day period:</p> <ol style="list-style-type: none"> 1) Number of times a user reconciled medication list data from a received CCDA 2) Number of times a user reconciled allergies and intolerance list data from a received CCDA 3) Number of times a user reconciled problem list data from a received CCDA 	<ol style="list-style-type: none"> 1) 327 2) 327 3) 327 	<p>While this certified capability is available to our users, most providers in the real world typically prefer to perform these steps manually and elect to save any outside received CCDAs as attachments to the patient record. Therefore, we recorded the frequency that providers were electronically reconciling and incorporating CCDAs that were received from outside providers to demonstrate the certified capability is available and effective, regardless of the frequency it is used.</p> <p>Our expectation was that there will be low utilization by providers with a high success rate.</p> <p>As expected, of the 11,430 CCDAs received, only 327 (or 2.8%) were incorporated electronically into the record.</p>
<p>170.315(b)(3) Electronic prescribing</p>	<p>Over a 90-day period:</p> <ol style="list-style-type: none"> 1) Number of prescriptions created 2) Number of prescriptions changed 3) Number of prescriptions canceled 4) Number of prescriptions renewed 	<ol style="list-style-type: none"> 1) 546,133 2) N/A 3) N/A 4) 31,228 	<p>We demonstrated the required certified capabilities are effective by demonstrating how often eRx transactions are performed by examining reports from our eRx partner, NewCrop, LLC. This will demonstrate that not only are the eRx transactions sent from the certified Health IT module, but that the transactions are successfully received by the eRx clearinghouse.</p> <p>Our expectation was that there will be high utilization by providers with a high success rate, which was confirmed.</p> <p>Note: Our system doesn't create "changed" or prescriptions, instead create a new prescription, as noted in our certification.</p>

170.315(b)(10)	<ol style="list-style-type: none"> 1) Number of databases tested 2) Success rate of export requested 	<ol style="list-style-type: none"> 1) 7 2) 100% 	<p>We changed this measurement from the original test plan to focus on the usability of the export.</p> <p>By testing live individual databases, we recorded the success rate of individuals being able to export the data requested across different population requirements.</p> <p>All individuals were able select the criteria requested and export the data to their local file system without difficulty and without vendor assistance. When exporting an entire population, the large number of files and long processing periods caused users to wonder if the export was still running. We improved the system with a UI dialog that showed progress of the export and implemented a crash recovery feature that will continue processing files where it left off in the event the user unexpectedly terminated the application.</p>
170.315(e) (1)	<p>Over a 90-day period:</p> <ol style="list-style-type: none"> 1) Number of views of health information by a patient or authorized representative 2) Number of downloads of health information by a patient or authorized representative 3) Number of transmissions of health information by a patient or authorized representative using unencrypted email 4) Number of transmissions of health information by a patient or authorized representative using encrypted method 	<ol style="list-style-type: none"> 1) 13,758 2) 6,973 3) 369 4) 47 	<p>We recorded the frequency that patients are viewing, downloading, and transmitting their records from the portal using the certified capabilities to demonstrate the certified capability is available and effective, regardless of the frequency it is used.</p> <p>Our expectation is there will be moderate utilization by patients for view and lower utilization for download and transmit with a high success rate for all certified capabilities, which was confirmed during the test period.</p>

<p>170.315(g)(7) Application access — patient selection</p>	<ol style="list-style-type: none"> 1) Number of requests for a patient ID or token 2) Number of requests that provided sufficient information to provide a valid response 3) Number of follow-up requests made using the provided patient ID or token 	<ol style="list-style-type: none"> 1) 0 2) N/A 3) N/A 	<p>We recorded the frequency that patient ID requests were received by providers via API to demonstrate the certified capability is available and effective, regardless of the frequency it was used.</p> <p>Our expectation was there will be low utilization by providers with a high success rate.</p> <p>We confirmed that there was a 0% utilization rate for the API.</p>
<p>170.315(g)(8) Application access — data category request</p>	<ol style="list-style-type: none"> 1) Number of requests for a patient's data made by an application via a data category request using a valid patient ID or token 2) Number of requests for a patient's data made by an application via a data category request using a valid patient ID or token for a specific date range 	<ol style="list-style-type: none"> 1) N/A 2) N/A 	<p>The plan was to record the frequency that patient data requests by category were received by providers and fulfilled via API to demonstrate the certified capability is available and effective, regardless of the frequency it was used.</p> <p>Our expectation was there will be low utilization by providers with a high success rate.</p> <p>We found that detailed API Usage metrics were never fully implemented on the production system. Initiated a development project to record usage metrics that could be used for this purpose.</p>
<p>170.315(g)(9) Application access — all data request</p>	<ol style="list-style-type: none"> 1) Number of requests for a patient's Summary Record made by an application via an all data category request using a valid patient ID or token 2) Number of requests for a patient's Summary Record made by an application via an all data category request using a valid patient ID or token for a specific date range 	<ol style="list-style-type: none"> 1) N/A 2) N/A 	<p>The plan was to record the frequency that patient data requests for all categories were received by providers and fulfilled via API to demonstrate the certified capability is available and effective, regardless of the frequency it is used.</p> <p>Our expectation was there will be low utilization by providers with a high success rate.</p> <p>We found that detailed API Usage metrics were never fully implemented on the production system. Initiated a development project to record usage metrics that could be used for this purpose.</p>

<p>170.315(h)(1) Direct Project</p>	<ol style="list-style-type: none"> 1) Number of Direct Messages sent 2) Number of Delivery Notifications received 3) Number of Direct Messages received 3) Number of Delivery Notifications sent 	<p>1)2,941 2)1,604 3)18,883 4)18,883</p>	<p>We recorded the required certified capabilities by demonstrating how often Direct Messages are exchanged with other systems to demonstrate the certified capability is available and effective, regardless of the frequency it is used.</p> <p>Our expectation is there will be moderate utilization by providers with a high success rate.</p> <p>Among our users, there is a low utilization of outgoing messages, but a high number of incoming messages, consistent with the high referral in for the specialty. Usage is low, which is also consistent with the number of CCDAs incorporated.</p>
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INTERACTIVE TESTING

The following test plans were executed to demonstrate Real World certified capabilities for criteria where metrics were not available, either because:

- There is 0 adoption of the criteria in the real world, either due to unanticipated lack of interest or other factors. Where applicable, these factors are described below.
- There is good adoption of the criteria, but the certified capabilities were developed without anticipating the collection of metrics in mind, so real world demonstration of the criteria is provided to demonstrate that it functions in the real world.

User Story 1 Care Coordination

Not performed – metrics were able to provide satisfactory information on the measures involved.

User Story 2 Patient Engagement

Not performed – metrics were able to provide satisfactory information on the measures involved.

User Story 3 Electronic Exchange

Not performed – metrics were able to provide satisfactory information on the measures involved.

User Story 4	API Usage
Care setting	Ambulatory Vision Care Providers (MDs, DOs, and ODs)
What is the workflow these features were intended to support?	<ul style="list-style-type: none"> • <i>Requests for API access/configuration are received</i> • <i>Once connected, requests for client data via the API are received</i>
Who are the human actors in a real world setting?	<i>External HISP vendors, patients, Smart API vendors</i>
What are the systems involved in the story?	<i>EyeMD EMR (Version 2), Postmate</i>
> What external modules or systems will you rely on?	<i>Postmate</i>
What are the criteria used within this workflow?	<ul style="list-style-type: none"> • <i>§ 170.315(g)(7) Application access- patient selection</i> • <i>§ 170.315(g)(8) Application access- data category request</i> • <i>§ 170.315(g)(9) Application access- all data request</i>
Which parts of the criteria cannot be tested using summative testing?	<i>None</i>
What is the rationale for not being able to provide metrics/summative testing for these elements?	<i>No requests made for access to API during testing</i>
Do we need an additional user story or mini user story to demonstrate the rest of the criterion?	<i>No</i>
What is the best way to prove this workflow functions in the real world?	<i>Functional Demonstration</i>

Associated Criterion	Metric	Outcomes	Challenges Encountered/Analysis
170.315 (g)(7): Application Access - Patient Selection meets 170.315	Functional Demonstration	Worked as designed	Outcome confirmed via Inferno test tool: <ul style="list-style-type: none"> • Patient ID is accepted, and token is returned • Patient CCDS or USCDI data is visible in the app as either discreet data fields or as a CCDA
(g)(8): Application Access - Data Category Request meets 170.315			
(g)(9): Application Access - All Data Request			

SCHEDULE OF KEY MILESTONES

Scheduling and logistics: Developed and completed by Dec 2023

Data Collection: Majority of observation and data collection completed by end of Dec 2023

Review & Collate data: Data review completed Jan 2023.

Writing of Report: Report completed at the end of January 2024.

ATTESTATION

This Real-World Testing Report 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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