



# Juno Emergency Services Solution v3.2 Real World Test Results

CHPL # 15.04.04.2925.JESS.03.02.1.220304

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## GENERAL INFORMATION

Plan Report ID Number:	JESSv3.2-2023-01
Developer Name:	DSS, Inc.
Product Name(s):	Juno Emergency Services Solution
Version Number(s):	v3.2
Certified Health IT Product List (CHPL) Product Number(s):	CHPL ID 15.04.04.2925.JESS.03.02.1.220304
Developer Real World Testing Plan and Results Report Page URL:	<a href="https://junohealth.com/certifications">https://junohealth.com/certifications</a>

## SUMMARY OF TESTING METHODS AND KEY FINDINGS

### Summary of Testing Methods

In a pre-production JESS v3.2 test environment, test data was entered by a set of users using test scripts for each measure published in the Appendices of the Juno Emergency Services Solution v3.2 Real World Test Plan. Aggregate data for v3.2 was compiled for each of the measure scenarios.

Scenario #	Approach/Description	Real World Test Results Criteria
170.315(b)(1) Transitions of Care Part 1 - Receive		
1	170.315(b)(1) Receipt and Validation of CCD – import document, validate, view specific section, set the # of sections, rearrange the order of display	Numerator = # scenarios with expected results Denominator = # scenarios
2	170.315(b)(1) Receipt and Validation of Referral Note – import document, validate, view specific section, set the # of sections, rearrange the order of display	Numerator = # scenarios with expected results Denominator = # scenarios
170.315(b)(1) Transitions of Care Part 2 - Send		
3	170.315(b)(1) Creation and Transmission of CCD	Numerator = # correct data elements in created and transmitted CCD Denominator = # expected data elements in created and transmitted CCD
4	170.315(b)(1) Creation and Transmission of Referral Note	Numerator = # correct data elements in transmitted Referral Note Denominator = # expected data elements in transmitted Referral Note



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

Scenario #	Approach/Description	Real World Test Results Criteria
1	170.315(b)(2) Import, Reconciliation, and Incorporation of CCD	Numerator = # scenarios with successfully imported and reconciled CCD Denominator = # scenarios
2	170.315(b)(2) Import, Reconciliation, and Incorporation of Referral Note	Numerator = # scenarios with successfully imported and reconciled Referral Note Denominator = # scenarios

170.315 (c)(1) Clinical Quality Measures – Record and Export and 170.315 (c)(3) Clinical Quality Measures – Report

Scenario #	Approach/Description	Real World Test Results Data
1 - 20	170.315(c)(1) Record all data necessary to calculate CQM’s CMS 68, CMS 69, CMS 127, CMS 138, CMS 146, CMS 147, and CMS 349. Successfully export the data file. Use DHIT CQMSolution to generate measure specific data for review.	Numerator = # reports (either aggregated or patient specific) with expected results for (1) Initial Patient Population (2) Numerator (3) Denominator (4) Denominator Exception (5) Denominator Exclusion Denominator =# reports reviewed (either aggregated or patient specific)

170.315(f)(2) Transmission to Public Health Agencies – Syndromic Surveillance

Scenario #	Approach/Description	Real World Test Results Data
1	170.315(f)(2) Creation, Transmission, and Validation of A04 and A03 ADT messages	Numerator = # correct data elements in all ADT messages created and sent in scenario Denominator = # data elements expected in all ADT messages in scenario
2	170.315(f)(2) Creation, Transmission, and Validation of A04, A03 and A08 ADT messages	Numerator = # correct data elements in all ADT messages created and sent in scenario Denominator = # data elements expected in all ADT messages in scenario
3	170.315(f)(2) Creation, Transmission, and Validation of A04, A03, A08 and A01 ADT messages	Numerator = # correct data elements in all ADT messages created and sent in scenario



	Denominator = # data elements expected in all ADT messages in scenario
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170.315(f)(3) Transmission to Public Health Agencies – Reportable Laboratory Tests and Values/Results

Scenario #	Approach/Description	Real World Test Results Data
1	170.315(f)(3) Successful Creation and Transmission, and Validation of ORU messages. <i>Note: Test patients used in this scenario were pre-registered to mimic real world conditions.</i>	Numerator = # correct data element in outgoing ORU HL7 message Denominator =# expected data elements in outgoing ORU HL7 message

Summary of Data for v3.2

170.315(b)(1) Transitions of Care Part 1 - Receive

Test Scenario	User 1 GM	User 2 RS	User 3 TW	User 4 AR	User 5 KA	User 6 OH	Total %
Scenario 1 – expected results for imported CCD	1/1	1/1	1/1	1/1	1/1	1/1	100%
Scenario 2 – expected results for imported RN	1/1	1/1	1/1	1/1	1/1	1/1	100%
Part 1 Total							100%

170.315(b)(1) Transitions of Care Part 2 - Send

Test Scenario	User 1 GM	User 2 RS	User 3 TW	User 4 AR	User 5 KA	User 6 OH	Total %
Scenario 3 – correct data elements in outgoing transmitted CCD	45/45	45/45	45/45	45/45	45/45	45/45	100%



Scenario 4 – correct data elements in outgoing transmitted RN	46/46	46/46	46/46	46/46	46/46	46/46	100%
Part 2 Total							100%

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

Test Scenario	User 1 GM	User 2 RS	User 3 TW	User 4 AR	User 5 KA	User 6 OH	Total %
Scenario 1 – correctly reconciled CCD	1/1	1/1	1/1	1/1	1/1	1/1	100%
Scenario 2 – correctly reconciled RN	1/1	1/1	1/1	1/1	1/1	1/1	100%
Overall Total Success							100%

170.315 (c)(1) Clinical Quality Measures – Record and Export and 170.315 (c)(3) Clinical Quality Measures – Report

Test Scenario	User 1 GM	User 2 RS	User 3 TW	User 4 AR	User 5 KA	User 6 OH	Total %
Scenario 1 – CMS 68 NUM	0/1	0/1	0/1	0/1	0/1	0/1	0%
Scenario 2 - CMS 68 DENEXC	1/1	1/1	1/1	1/1	1/1	1/1	100%
Scenario 3 – CMS 68 DEN	1/1	1/1	1/1	1/1	1/1	1/1	100%
Scenario 4 – CMS 69 NUM	1/1	1/1	1/1	1/1	0/1	1/1	83%



Scenario 5 – CMS 69 DENEXC	1/1	0/1	1/1	1/1	1/1	1/1	83%
Scenario 6 – CMS 69 DENEXCLUSION	1/1	0/1	1/1	1/1	1/1	1/1	83%
Scenario 7 – CMS 127 NUM	1/1	1/1	1/1	1/1	1/1	1/1	100%
Scenario 8 – CMS 127 DEN EXCLUSION	1/1	1/1	1/1	1/1	1/1	1/1	100%
Scenario 9 – CMS 138 POP1NUM	1/1	1/1	1/1	1/1	1/1	1/1	100%
Scenario 10 – CMS 138 POP2 DEN EXC	1/1	1/1	1/1	1/1	1/1	1/1	100%
Scenario 11 – CMS 138 POP1 DEN	1/1	1/1	1/1	1/1	1/1	1/1	100%
Scenario 12 – CMS 146 NUM	1/1	1/1	1/1	1/1	1/1	1/1	100%
Scenario 13 – CMS 146 DEN	1/1	1/1	1/1	1/1	1/1	1/1	100%
Scenario 14 – CMS 146 DEN EXCLUSION	1/1	1/1	1/1	1/1	0/1	0/1	67%
Scenario 15 – CMS 147 NUM	1/1	1/1	1/1	1/1	1/1	1/1	100%
Scenario 16 – CMS 147 DENEXC	1/1	1/1	1/1	1/1	1/1	1/1	100%
Scenario 17 – CMS 147 IPP (Not	NA	NA	NA	NA	NA	NA	NA



performed during Influenza season)							
Scenario 18 – CMS 349 NUM	1/1	1/1	1/1	1/1	1/1	1/1	100%
Scenario 19 – CMS 349 DEN EXCLUSION	1/1	1/1	1/1	1/1	1/1	0/1	83%
Overall Success Rate							89%

170.315(f)(2) Transmission to Public Health Agencies – Syndromic Surveillance

Test Scenario	User 1 GM	User 2 RS	User 3 TW	User 4 AR	User 5 KA	User 6 OH	Total %
Scenario 1 – correct data elements in A04 and A03	26/26	25/26	24/26	26/26	26/26	26/26	98%
Scenario 2 – correct data elements in A04, A03, and A08	34/34	27/34	34/34	32/34	30/34	32/34	93%
Scenario 3 – correct data elements in A04, A08, A03 and A01	37/38	37/38	37/38	38/38	37/38	37/38	98%
Overall Total Success							96%



### 170.315(f)(3) Transmission to Public Health Agencies – Reportable Laboratory Tests and Values/Results

Test Scenario	User 1 GM	User 2 RS	User 3 TW	User 4 AR	User 5 KA	User 6 OH	Total %
Scenario 1 – correct data elements in outgoing ORU	11/11	10/11	10/11	10/11	11/11	11/11	95%
Overall Total Success							95%

## Key Findings

Test data similar to that required for ONC certification was used in an attempt to test the full breadth of measure functionality. With no client data to utilize for the analysis however, the power of the study was somewhat reduced due to the small sample size.

Testing results for 170.315(b)(1) Transitions of Care Part 1 – Receive, 170.315(b)(1) Transitions of Care Part 2 – Send, and 170.315(b)(2) Clinical Information Reconciliation and Incorporation revealed an overall very high success rate. There were no errors encountered in this portion of the study.

Analysis of the testing data for 170.315(c)(1)/ 170.315(c)(3) identified an issue with the numerator component of CMS 68 report. The relevant data was correctly recorded by Juno Emergency Services Solution, but data was not accurately processed by our partner software DHIT CQMSolution to reflect the data for the numerator component of the report. Due to the small sample size, the issue lowered the overall success rate from 94% to 89%. Otherwise, all test data was shown to be recorded and accurately reflected in the CQM reports.

Test data for 170.315(f)(2) revealed an overall success rate of 96%. There were no message segments that failed for all test users, suggesting that the few errors encountered were due to data entry errors rather than system defects.

Similarly, the test data for 170.315(f)(3) revealed an overall success rate of 95%. As mentioned in the previous results report for v3.1, we were able to successfully demonstrate the presence of the NTE message segments in the outgoing ORU.





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

*Both required and voluntary standards updates must be addressed in the Real World Testing plan. Real World Testing plans must include all certified health IT updated to newer versions of standards prior to August 31 of the year in which the updates were made. Indicate as to whether optional standards, via SVAP and/or USCDI, are leveraged as part of the certification of your health IT product(s).*

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.

### Care Setting(s)

The RWT Test Plan was intended for the Emergency Department/Urgent Care Ambulatory care setting; however, no client data was available as there were no customers utilizing the functionality. Data was entered in a testing environment.

### Metrics and Outcomes

Measurement /Metric	Associated Criterion(a)	Relied Upon Software (if applicable)	Outcomes	Challenges Encountered (if applicable)
<p>Successful creation, display, and transmission of the C-CDA for transition of care/referral summaries, i.e., Continuity of Care Document and Referral Note, in the format that conforms to the standard specified in § 170.202(d) with no errors detected during the validation process.</p> <p>The measure includes two parts, i.e., (1) % scenarios that include receipt of C-CDAs and a display of C-CDAs received in human readable format the required data as detailed in § 170.205(a)(3), (4), and (5) using the using the Continuity of Care Document and Referral Note document templates that allow the user to view a specific section, set the # of sections to display and rearrange the order of the display</p>	§ 170.315(b)(1)		6/6 = 100%	NA



<p><i>Numerator= # scenarios with expected results</i>  <i>Denominator = # scenarios tested with C-CDAs received (Scenarios 1-2 included in test plan)</i></p>				
<p>(2) % scenarios that include creation and successful transmission of the data for Continuity of Care Document and Referral Note document types through SMTP protocol to an appropriate direct address in accordance with § 170.202(d) based on the date/time specified and that leads to such summaries being processed by a service that has implemented the standard specified in § 170.202(a)</p> <p><i>Numerator= # correct data elements in outgoing C-CDA's</i>  <i>Denominator = # correct data elements expected in C-CDAs created and transmitted (Scenarios #3-4) included in test plan)</i></p>	§ 170.315(b)(1)		546/546 = 100%	NA
<p>Successful import, reconciliation, and incorporation of the data in accordance with Paragraph (b)(2)(i) and (ii), (b)(2)(iii)(B) -(D), and (b)(2)(iv).</p> <p><i>Numerator= # scenarios with correctly reconciled Allergies, Medications, and Problems</i></p> <p><i>Denominator = # scenarios tested for import and reconciliation of Allergies, Medications, and Problems</i></p>	170.315(b)(2)		12/12 = 100%	NA
<p>Successful compilation of the data for the selected EP eCQMs compiled by DHIT in CQMSolution® in a format that can be utilized for subsequent transmission to the designated site (Joint Commission or CMS).</p> <p>The measure includes:</p> <ul style="list-style-type: none"> <li>% reports viewed that include the accurate data for the measure and for each of the patients on the report</li> </ul> <p><i>Numerator= # reports (either aggregated or patient specific) with expected results for (1) Initial Patient Population, (2) Numerator, (3)</i></p>	170.315(c)(1)/ 170.315(c)(3)	DHIT CQMSolution	96/108 = 89%	Refer to <a href="#">Key Findings Section</a>



Denominator, (4) Denominator Exception and (5) Denominator Exclusion, based on data entry for the patient  Denominator = # reports reviewed prior to transmission/uploading (either aggregated or patient specific)				
Successful creation, transmission, and receipt of the A04, A03, A08, and A01 messages.  <i>Numerator= # of correct data elements in HL7 messages for each scenario</i>  <i>Denominator = # of data elements expected in HL7 messages for each scenario tested</i>	170.315(f)(2)		567/588= 96%	NA
Successful creation, transmission, and receipt of the ORU messages in the format that conforms to HL7 Version 2.5.1 and IHTSDO SNOMED CT® International Release July 2012.  <i>Numerator= # of correct data elements in HL7 message for scenarios with expected results</i>  <i>Denominator = # of expected data elements in HL7 message for scenario tested</i>	170.315(f)(3)		63/66 = 95%	NA

## KEY MILESTONES

Key Milestone	Care Setting	Date/Timeframe
Release of documentation for the Real World Testing to be provided to authorized representatives and providers running JESS v3.2. Since we do not have any real live authorized representatives and providers and we are using test data, documentation was provided to the individuals performing the test. This includes surveys, specific instructions on what to look for, how to record issues encountered.	Ambulatory - Emergency Department/Urgent Care	12/1/23
Begin collection of information as laid out by the plan.	Ambulatory - Emergency Department/Urgent Care	1/23/24
Meet with previously identified providers and authorized representatives to ensure that Real World Testing protocols are effective.	Ambulatory - Emergency Department/Urgent Care	N/A - Not done as we currently do not have any active customers using RWT functionality; testing



		completed in pre-prod environment
Follow-up with providers and authorized representatives to understand any issues arising with the data collection.	Ambulatory - Emergency Department/Urgent Care	N/A - Not done as we currently do not have any active customers using RWT functionality; testing completed in pre-prod environment
Data collection and review.	Ambulatory - Emergency Department/Urgent Care	1/23/24 – 2/7/24
End of Real World Testing period/final collection of all data for analysis.	Ambulatory - Emergency Department/Urgent Care	2/7/24
Analysis and report creation.	Ambulatory - Emergency Department/Urgent Care	2/8/24
Submit Real World Testing report to ACB (per their instructions).	Ambulatory - Emergency Department/Urgent Care	2/9/24

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Authorized Representative Signature:	<i>Hilary Kloska</i>	Date Signed:	2/9/2024