

MADiE User Group

May User Group

Hosted by ICF/SemanticBits

May 15th, 2025



MADiE is owned and operated under contract with CMS

Contracting Officer Representative (COR): Emmanuel Kalluri

Disclaimer

This meeting is being recorded to ensure notes and action items are captured accurately.

Attendees who have objections to the meeting being recorded are asked to let the facilitator know at this time

Agenda and Objectives

Agenda

1. MADiE Updates
2. Help Desk Ticket Submission Information
3. User Experience/Design Discussions
4. Community Questions & Discussions
5. Review of Resources

Objectives

- Inform MADiE users of current and planned activities
- Create a forum to gather community feedback on future enhancements
- Foster collaboration through open community discussion

60 Day Account Deactivation

Keeping your MADiE Account Active:

- In accordance with CMS and HHS security requirements, MADiE has implemented an account deactivation policy for all users who have not logged in within the previous 60 days or more.
- Users will receive warning messages after 30 days of inactivity.
- After 60 days of inactivity, accounts will be deactivated.
- To access a deactivated MADiE account again, users will need to request the MADiE role in HARP.
 - **Do NOT** respond to the deactivation email.

*Keep your MADiE account active to continue to receive important email communications!

MADiE

MADiE 2.2.3

MADiE: Current State

MADiE – 2.2.3 5/14/2025

- MADiE has been updated to alert the user with an error message if the test case contains a syntax error.
Note: Test cases can be saved but not run until the syntax error has been resolved.
- **QDM Measures:** MADiE has been updated to use CQM-Execution Engine 4.3.2. Release notes can be found [here](#). ([MADIE-2127](#), [MADIE-2173](#), [MADIE-2198](#))
- Resolved Known Issues:
 - During export, MADiE was unable to correctly resolve the first definition if it uses a reference definition in the CQL. ([MADIE-2076](#))
 - MADiE was outputting extraneous brackets in risk adjustment variables in the human readable. ([MADIE-2108](#))

MADiE – Known Issues (1 of 3)

The Known Issues List is posted and maintained on the [Training and Resources](#) tab on the public website and the Summary page of the [MADiE ONC Jira Issue Tracker](#).

MADiE Known Issues as of 5/15/2025:

- Users will automatically be logged out of MADiE after 30 minutes of inactivity. If the user has more than one active session of MADiE in any combination (in different tabs in the same browser or in different browsers) and one of the sessions reaches 30 minutes of inactivity the session will expire, and the user will be logged out of all sessions. If the user is logged out prior to saving changes, any unsaved changes will not be retained when the user logs into MADiE again.
 - **Workaround:** Users can keep all sessions active by clicking on the screen for each session periodically. Clicking on each active session prior to reaching 30 minutes of inactivity will prevent the sessions from expiring and prevent the user from being logged out of all sessions. [MADIE-1554](#) [MADIE-1623](#)

MADiE – Known Issues (2 of 3)

MADiE Known Issues as of 5/15/2025:

- When importing QI-Core test cases from MADiE into a measure with Stratifications, the test cases will appear as if the measure does not have stratifications. This occurs even if the measure the test cases were exported from had stratifications.
 - **Workaround:** Navigate to the population criteria tab, modify any stratification, click save. Then navigate back to the test cases and stratification should now be present.
- **QDM Measures:** QRDA export will fail if a measure includes one or more test cases that have the Payer data element added, but no code selected for the data element.
 - **Workaround:** Update the impacted test cases to either add a code to the Payer data element or remove the Payer data element. [MADIE-2043](#)
- **QDM Measures:** Unexpected results are received for test cases that included a quantity prior to the update released with MADiE 2.0.7 on 10/13/2024.
 - **Workaround:** Users will need to update impacted test cases to edit the quantity and save the test case again. This will apply the update released with MADiE 2.0.7 to be applied to that test case. [MADIE-2056](#)

MADiE – Known Issues (3 of 3)

MADiE Known Issues as of 5/15/2025:

- **QDM Measures:** For Ratio and Continuous Variable measures, in test cases imported from Bonnie with observations, users may receive an error message and be prevented from editing the impacted test cases.
 - **Workaround:** Remove the observation expected value by zeroing out the relevant population (Numerator, Denominator or Measure Population), and then re-enter the expected values. If a test case has multiple observations, each will need to be updated accordingly. [MADIE-2090](#)
- **QI-Core Measures:** Test case execution produces unexpected results after a measure draft is versioned.
 - **Work around:** By creating a draft of the new measure version and running test cases, the test case execution will perform as expected. [MADIE-2191](#), [MADIE-2192](#), [MADIE-2193](#)

QI-Core v6.0.0 CQL Libraries

Global Shared Libraries in MADiE:

Commonly used QI-Core v6.0.0 libraries have been entered into MADiE.

QI-Core v6.0.0 Name in MADiE	Version in MADiE
CQMCommon	4.1.000
FHIRHelpers	4.4.000
QICoreCommon	4.0.000
CumulativeMedicationDuration	6.0.000
SupplementalDataElements	5.1.000

QI-Core v4.1.1 CQL Libraries

Global Shared Libraries in MADiE:

Commonly used QI-Core v4.1.1 libraries have been entered into MADiE.

QI-Core v4.1.1 Name in MADiE	Version in MADiE
CQMCommon	2.2.000
FHIRCommon	4.3.000
FHIRHelpers	4.4.000
QICoreCommon	2.1.000
CumulativeMedicationDuration	4.1.000
SupplementalDataElements	3.5.000

QDM CQL v5.6 Libraries

Global Shared Libraries in MADiE:

Commonly used QDM libraries have been entered into MADiE.

QDM 5.6 Name in MADiE	Version in MADiE
CQMCommonQDM	9.0.000
CumulativeMedicationDurationQDM	3.0.000

Versioning Measures in MADiE

QI-Core Measures: When versioning MADiE measures, please double check you have selected the appropriate version (Major, Minor or Patch). A pop up will appear where a user can select Major, Minor, or Patch version. The pop up will also display the current version number, the future version number after versioning is complete, and a text area for the user to confirm the new version number. Users will need to type in the version number, and it will need to match what the tool will be updating the version number to in order to proceed.

To better understand what part of the measure version is updated when versioning a measure, see the values below. X is the value that will be incremented. P is the value that remains the same after versioning. 0 is the value that will be cleared out and set to 0 after versioning.

Major X.0.000

Minor P.X.000

Patch P.P.XXX

If you version your measure using the wrong version type (Major, Minor, or Patch), the MADiE Help Desk Team can help. Complete the MADiE Revert Measure Version Request Form v1.0 available on the [Training and Resources](#) tab on the public website and submit the form via email to semanticbits-madie-help@icf.com

Create Version * Indicates required field

* **Version Type** Current Version #

Patch 0.0.000

New Version # * Confirm New Version # ?

0.0.001 Confirm New Version Number

Cancel Continue

CMS Web Application Firewall Errors

CMS Web Application Firewall (WAF) Issues

- CMS WAF errors are received when an attempted action (i.e. saving or exporting) is rejected by the CMS security policy, blocking further action by the user
- This can happen when working in a measure or test case that previously did not receive a CMS WAF error, or when making a change to the measure or test case

When an action is blocked, please include the following information in your ONC JIRA ticket.

- Measure Name/ID
- Test case Name (if applicable)
- Action that resulted in unexpected error messages or an inability to save changes (include specific verbiage/CQL/JSON that was unable to save)
- Providing the error message assists the team in confirming the cause of the issue
- When error messages include a 'Support ID' include that ID number in your ticket so that can be provided to CMS to unblock the attempted action

Examples of CMS WAF error messages:

- The Measure Authoring Tool was unable to process the request. Please try again. If the problem persists, please contact the Help Desk.
- System error. Unable to process information
- 403 Forbidden The requested URL was rejected by CMS security policy. If you believe this is in error, please contact the HIDS Security Operations Center QNET_soc@cms.hhs.gov and reference your Support ID: 2586968644408754759

Help Desk Ticket Submission Process (1 of 3)

The **MADiE Ticket Submission Guidance** document on the [Training and Resources](#) tab on the public website provides guidance to measure developers needing assistance with measures or test cases.

This document includes the following:

- Steps to take prior to submitting a Help Desk ticket
- When to submit a ticket to MADiE Issue Tracker (MADiEIT) and when to submit a ticket to CQL Issue Tracker (CQLIT)
- A list of artifacts to include if a ticket is being created with either CQLIT or MADiEIT for assistance with measure CQL or test case JSON

Reference the [MADiE Help Desk Process Diagram](#)

Help Desk Ticket Submission Process (2 of 3)

Steps to take prior to submitting a ticket:

1. **Search for an Issue:** Have a question or experiencing an issue? Search by keyword or project, see if others have submitted the same question or reported the same issue, and review the responses.
2. **If a ticket needs to be submitted, identify the appropriate Issue Tracker – CQLIT or MADiEIT**
 - Submitting tickets to the incorrect IT will increase the response time as two teams will need to review the ticket. This will delay possible resolution for the submitter.
3. **Identify the Ticket Type to be used**
 - Choices are – Bug/Issue, Delete Library, Enhancement Request, MADiE Access Question, Question, User Group Question/Topic, or User Research Feedback
 - The responses that are auto-generated when a ticket is created is determined by the ticket type and include additional information that may be needed for the ticket to be processed.
 - For example, the auto-response, required information, and format for that information for an Enhancement Request ticket is driven by the “Are you part of a CMS Contract” field. CMS Contractors must attach a completed Enhancement Request Form while other submitters are directed to answer several questions in the description or as a comment.

Help Desk Ticket Submission Process (3 of 3)

Steps to take prior to submitting a ticket (continued):

4. Include all required information based on the type of ticket you are creating

- Populate all applicable available fields when creating the ticket. These fields can be updated after the ticket is created by selecting “Edit” if additional information needs to be added.
- The required fields are specific to the Issue Tracker the ticket is submitted to. For example, the measure name and URL is required for the MADiEIT but is not available for the CQLIT. When tickets are moved only the data in fields available by the IT the ticket is moved to will be retained, and different data may be needed that wasn't originally entered.

5. Attach required artifacts and supporting documentation

- Tickets created with required information and supporting documentation missing will be sent back to the submitter with a comment listing the missing information and supporting documentation. Populating all applicable fields while creating the ticket will assist the MADiE team when processing this ticket.
- **IMPORTANT NOTE:** Until all required information and supporting documentation are included, the ticket cannot be processed. Including this information at the time of ticket creation will expedite the time from ticket creation to when the team may begin processing the ticket. **Specifically: Attach the measure package and test case export, include measure, library and/or test case URLs, and include the Enhancement Request Form when applicable for the ticket you are submitting.**

Tickets to be Submitted to the CQLIT

Tickets submitted to the CQL Issue Tracker will be evaluated and the standards team may identify the ticket needs to be moved on to the MADiE Issue Tracker to evaluate MADiE functionality.

The following types of tickets should be submitted to the [CQL Issue Tracker](#):

- User is experiencing a CQL error in the MADiE CQL Editor that is not resolved after reviewing resources (see list in the Ticket Submission Guidance document) and consulting with SMEs
- User is unable to resolve JSON test case error message(s) after reviewing resources (see list in the Ticket Submission Guidance document) and consulting with SMEs
- MADiE test case results are not as expected, and the following has been confirmed:
 - JSON does not contain validation errors
 - Valid CQL
 - Appropriate utilization of QI-Core Profiles:
 - hl7.org/fhir/us/qicore/STU4.1.1/profiles.html
 - hl7.org/fhir/us/qicore/STU6/profiles.html

Tickets to be Submitted to the MADiEIT

The following types of tickets should be submitted to the [MADiE Issue Tracker](#):

- Enhancement requests
- Issues accessing the applications after verifying network or internet connection
- Tool performance issues in which do not subside after verifying network or internet connection
- Error message received which instructs the user to contact the Help Desk
- Clarification needed for functionality after review of resources
- MADiE CQL error that was not resolved after review of available resources, consulting with SMEs and/or [CQL Issue Tracker](#)
- MADiE test case error that was not resolved after review of available resources, consulting with SMEs and/or [CQL Issue Tracker](#)
- MADiE measure export inquiries
- Issues with the measure HTML file (referred to as the 'Human Readable'), in the measure package export
- MADiE test case export (QRDA or Excel) inquiries
- Library deletion requests

Help Desk Requests Including HARP IDs

- The following requests must be submitted via email at semanticbits-madie-help@icf.com as they contain HARP IDs
 - Add measure or library sharing requests
 - Remove measure and library sharing access requests
 - Measure or library ownership transfer requests
 - CMS ID deletion requests
 - Revert measure version requests
 - or other inquiries with a HARP ID
- Do not submit these requests until you have confirmed that all users involved in the request have active MADiE accounts

UXR – MADiE Usability Interviews

The MADiE team would like to conduct interviews to better understand its use by participants.

- **Join Us!** We're looking for 8 – 9 volunteers for a 1-hour interview on using MADiE to create measures.
- **Your Insights Matter!** The interview will involve reviewing the processes for creating measures in MADiE.
- **Make a Difference!** Your feedback will help us enhance MADiE's tools to better meet your workflows.
- **Be a Part of Improvement!** We highly encourage participation to help us tailor MADiE to your needs.
- **Get Involved!** To volunteer, please complete the questionnaire below and provide you contact email. Thank you.
- <https://forms.office.com/r/wzw41MGU4z>

Enhancement Request – Generic Measurement Period

- Generic Measurement Period
 - Functionality: This enhancement would allow a user to select the generic measurement period of January 1, 20XX – December 31, 20XX for a measure. Users would also need to then select an appropriate test case measurement period to execute test cases against (when the generic year is selected for the measure).
 - Considerations:
 - This work will not be complete by the next AU cycle, is it worth doing at all?

Enhancement Request – Clone a Measure

- Clone a Measure
 - This enhancement would allow a user to clone any measure in MADiE. When a user chooses to clone a measure, they could choose what level of detail to clone, including Measure Details, CQL, Population Criteria, and Test Cases
 - Considerations:
 - There are concerns that this could cause the perception of multiple versions of the same measure in MADiE, making it difficult to find the correct measure on which a user intends to work
 - MADiE does have some upcoming UI enhancements which will make it easier to find and organize measures – tentatively releasing in late June or early July
 - MADiE does not allow users to duplicate measure names (and will not allow it while cloning either)
 - Also consider – MADiE already allows users to clone a measure. Currently, it is a manual process where users copy all the details, CQL, etc. from one measure into a new measure

Enhancement Request – Measure Privacy

- Measure Privacy
 - This enhancement would allow a user to mark their measure as private, in which it would not be accessible to other users
 - Concerns:
 - Measure privacy may impact the ability of the AU team to review measures under current processes
 - Keep in mind, MADiE is a government-owned tool – anything on a government tool does not have a right to privacy
 - Also, MADiE is an open source tool – those wanting to do measure development in private are welcome to pull down the code and host the tool locally

Enhancement Request – Easy Test Case Metadata Updates

- Easy Test Case Metadata Updates
 - This enhancement would allow a user to easily update the test case group, title, and description from the test case list (without having to navigate into the edit test case screen, and then the Details tab, make changes, and then back out to the list)
 - Concerns:
 - Currently there is a mismatch between the Group and Title on the test case UI and the Family and Given fields in the JSON. Allowing an easier way of updating Group and Title would add to the issue of that mismatch
 - The MADiE team is currently considering an enhancement to give users a 1-click way (such as an icon in the action center on the test case list page) to allow users to update their JSON to make the Family = Group and Given = Title

Enhancement Request – Coming Soon in Prioritization

- Calculation Tool
 - This enhancement will allow users to calculate dates within MADiE
- Independent Measure Testing
 - This enhancement will allow users to build test cases against measures they do not have edit access to
- Rename Population Criteria
 - This enhancement will allow users to rename the Population Criteria for use with test cases. (This will not affect Population Criteria on the measure)

UXD – Shared Measures

Shared Measures Discussion

- Discuss the talking points brought up in Pi-Planning
- Take a Poll

* As of now, unshare functionality is tied to this particular view

The screenshot displays the MADiE Measures interface. The top navigation bar includes the MADiE logo, the text 'Measure Authoring Development Integrated Environment', and tabs for 'Measures', 'Libraries', and 'Help'. On the right, there is a 'Connect to UMLS' button and a user profile for 'Jonathan'. The main header area shows 'Measures' and a welcome message 'Welcome, Jonathan', along with a '+ New Measure' button. Below this, there are three tabs: 'Owned Measures (18)', 'Shared Measures (6)' (which is highlighted with a yellow box), and 'All Measures (1112)'. A 'Filter By' dropdown menu is set to 'Select', and a search bar is present. A table of measures is displayed with columns for 'Measure', 'Version', 'Status', 'Model', 'CMS ID', and 'Updated'. The table lists six measures, with the last one, 'UpdatedQDMSmokeTestMeasure0710', marked as 'Draft'. Each measure has a 'View' button and a right-pointing arrow. At the bottom of the table, it shows 'Items per page' set to 5 and '1 - 6 of 6'. The footer contains links for 'Get Help', 'User Guide', 'Freedom of Information Act', 'Accessibility Policy', 'Privacy Policy', 'Rules of Behavior', 'Terms of Use', and 'cms.gov'. It also includes the 'Measure Authoring DEVELOPMENT INTEGRATED ENVIRONMENT' logo, the version '2.1.3', and a statement about the website being managed by the U.S. Centers for Medicare & Medicaid Services.

Measure	Version	Status	Model	CMS ID	Updated
<input type="checkbox"/> Social Drivers of Health Screenings Not Performed	2.0.005		QDM v5.6	9876	12/30/2024
<input type="checkbox"/> Statin Therapy for the Prevention and Treatment of Cardiovascular DiseaseFHIR	0.0.022		QI-Core 4.1.1	-	12/30/2024
<input type="checkbox"/> Core Clinical Data Elements for the Hybrid Hospital-Wide Readmission Measure with Claims and Electronic Heal...	0.0.024		QI-Core 4.1.1	2035	12/30/2024
<input type="checkbox"/> Child and Adolescent Major Depressive Disorder (MDD): Suicide Risk Assessment	1.0.005		QDM v5.6	-	12/30/2024
<input type="checkbox"/> NewQDMMeasure2Transfer142	0.1.001		QDM v5.6	1928	12/30/2024
<input type="checkbox"/> UpdatedQDMSmokeTestMeasure0710	2.0.017	Draft	QI-Core 4.1.1	-	12/30/2024

UXD – Post Versioning

After a measure has been versioned, users have the ability to add/edit test cases:

- Do users need to identify which test cases have been added or edited since after it was versioned?
- Is there a preference to how or where that status would be displayed?

The screenshot displays the MADiE (Measure Authoring Development Integrated Environment) interface. The top navigation bar includes the MADiE logo, version information (Version: 1.4.000, Model: QI-Core v4.1.1, MP: 1/1/2025 - 12/31/2025), and user information (Jonathan). The main header shows the measure name: "Bone density evaluation for patients with prostate cancer and receiving androgen deprivation therapy". Below the header, there are tabs for "Details", "CQL Editor", "Population Criteria", and "Test Cases (5)". The "Test Cases" tab is active, showing a summary of test case performance: 40% Passing (2/5), 80% Coverage, and 60% Validated. A sidebar on the left lists navigation options: Population Criteria, Criteria 1, Criteria 2, Criteria 3, Configuration, Expansion, SDE, RAV, Test Case Data, and Value Sets. The main content area displays a table of test cases with columns: Case #, Status, Validation, Group, Title, Description, Last Saved, and an Edit button. The table contains five rows of test cases, each with a checkbox, a status icon (Pass/Fail), a validation icon (Valid/Invalid), a group name, a title, a description, a last saved timestamp, and an edit button. A yellow box highlights the "Last Saved" column and the "Edit" buttons for the first two test cases.

Case #	Status	Validation	Group	Title	Description	Last Saved	Edit
1	Pass	Valid	Series 001	Intensive Care Unit Venous Thromboembolism Prophylaxis	Patient did not receive anti-coagulant due to medical reason, but start date is after end of encounter.	05/07/2025 11:32:49	Edit
3	Fail	Invalid	Series 005	Adult Major Depressive Disorder (MDD): Suicide Risk Assessment	Patient with Diagnosis during Encounter Performed: Psych Visit - Diagnostic Evaluation. Intervention Performed. Suicide risk Assessment before MP:	03/15/2025 12:19:01	Edit
4	Pass	Invalid	Series 107	Global Malnutrition Composite Score	Meets IPP, DENOM - Current Age. Encounter PCSEOV During MP. Diagnosis of Hypertension takes place <=6mos. R2D2 MP. An adult outpatient visit value set overlaps the diagnosis. It's code is not allowed in the IP).	03/15/2025 12:19:01	Edit
7	Fail	Valid	DENEXCEPPass	DEXANotPerformedPtRefusedEdge	Systolic blood pressure labs not in encounter timing interval	03/15/2025 12:19:01	Edit
8	Fail	Valid	Series 201	Hospital Harm - Severe Hypoglycemia	Patient with Diagnosis during Encounter Performed: Psych Visit - Diagnostic Evaluation. Intervention Performed. Suicide risk Assessment before MP:	03/15/2025 12:19:01	Edit

UXD – Validation Total

CMS requested that a total validation % be displayed

- Following the existing design pattern would make this % be a clickable tab.
 - Should it be?
 - Would that tab have it's own data grid?
 - What would exist in that grid?

If it is not a clickable tab and an informational display instead, will this incongruity confuse users?

The screenshot displays the MADiE interface for a measure titled "Bone density evaluation for patients with prostate cancer and receiving androgen deprivation therapy". The top navigation bar includes "Measures", "Libraries", "Help", "Connect to UMLS", and a user profile for Jonathan. The main header shows the measure name, version (1.4.000), model (QI-Core v4.1.1), and measurement period (MP: 1/1/2025 - 12/31/2025). Below this, there are tabs for "Details", "CQL Editor", "Population Criteria", and "Test Cases (5)". The "Test Cases" tab is active, showing a summary of validation results: 40% Passing (2/5), 80% Coverage, and 60% Validated. A table of test cases is displayed below the summary, with columns for Case #, Status, Validation, Group, Title, Description, and Last Saved. Each row includes an "Edit" button.

Case #	Status	Validation	Group	Title	Description	Last Saved
1	Pass	Valid	Series 001	Intensive Care Unit Venous Thromboembolism Prophylaxis	Patient did not receive anti-coagulant due to medical reason, but start date is after end of encounter.	05/07/2025 11:32:49
3	Fail	Invalid	Series 005	Adult Major Depressive Disorder (MDD): Suicide Risk Assessment	Patient with Diagnosis during Encounter Performed: Psych Visit - Diagnostic Evaluation. Intervention Performed. Suicide risk Assessment before MP:	03/15/2025 12:19:01
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7	Fail	Valid	DENEXCEPPass	DEXANotPerformedPtRefusedEdge	Systolic blood pressure labs not in encounter timing interval	03/15/2025 12:19:01
8	Fail	Valid	Series 201	Hospital Harm - Severe Hypoglycemia	Patient with Diagnosis during Encounter Performed: Psych Visit - Diagnostic Evaluation. Intervention Performed. Suicide risk Assessment before MP:	03/15/2025 12:19:01

UXD – Validation Total

MADiE

Measure Authoring Development
Integrated Environment

MeasuresLibrariesHelp

Home > Measure

Bone density evaluation for patients with prostate cancer and receiving androgen deprivation therapy

Version: 1.4.000 | Model: QI-Core v4.1.1 | MP: 1/1/2025 – 12/31/2025 | In-Use

DetailsCQL EditorPopulation CriteriaTest Cases (5)

Population Criteria

Criteria 1

Criteria 2

Criteria 3

Configuration

Expansion

SDE

RAV

Test Case Data

Value Sets

40%
Passing (2/5)

80%
Coverage

60%
Validated

Report(s)

Filter By

Select

Search

Q Search

<input type="checkbox"/>	Case #	Status	Validation	Group	Title	Description
<input type="checkbox"/>	1	Pass	Valid	Series 001	Intensive Care Unit Venous Thromboembolism Prophylaxis	Patient did not receive a coagulant due to medical reason, but start date is end of encounter.
<input type="checkbox"/>	3	Fail	Invalid	Series 005	Adult Major Depressive Disorder (MDD): Suicide Risk Assessment	Patient with Diagnosis of Encounter Performed: P Visit - Diagnostic Evaluation Intervention Performed. risk Assessment before
<input type="checkbox"/>	4	Pass	Invalid	Series 107	Global Malnutrition Composite Score	Meets IPP, DENOM - Current Age. Encounter PCSEOV MP. Diagnosis of Hypertension takes place <=6mos. R2(An adult outpatient visit set overlaps the diagnosis code is not allowed in the
<input type="checkbox"/>	7	Fail	Valid	DENEXCEPPass	DEXANotPerformedPtRefusedEdge	Systolic blood pressure in encounter timing inte
<input type="checkbox"/>	8	Fail	Valid	Series 201	Hospital Harm - Severe Hypoglycemia	Patient with Diagnosis of Encounter Performed: P Visit - Diagnostic Evaluation Intervention Performed. risk Assessment before

MADiE

Measure Authoring Development
Integrated Environment

MeasuresLibrariesHelp

Home > Measure

Bone density evaluation for patients with prostate cancer and receiving androgen deprivation therapy

Version: 1.4.000 | Model: QI-Core v4.1.1 | MP: 1/1/2025 – 12/31/2025 | In-Use

DetailsCQL EditorPopulation CriteriaTest Cases (5)

Population Criteria

Criteria 1

Criteria 2

Criteria 3

Configuration

Expansion

SDE

RAV

Test Case Data

Value Sets

40%
Passing (2/5)

80%
Coverage

60%
Validated

Report(s)

MADiE Import

Filter By

Select

Search

Q Search

<input type="checkbox"/>	Case #	Status	Validation	Group	Title	Description
<input type="checkbox"/>	1	Pass	Valid	Series 001	Intensive Care Unit Venous Thromboembolism Prophylaxis	Patient did not receive a coagulant due to medical reason, but start date is end of encounter.
<input type="checkbox"/>	3	Fail	Valid	Series 005	Adult Major Depressive Disorder (MDD): Suicide Risk Assessment	Patient with Diagnosis of Encounter Performed: P Visit - Diagnostic Evaluation Intervention Performed. risk Assessment before
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<input type="checkbox"/>	8	Fail	Valid	Series 201	Hospital Harm - Severe Hypoglycemia	Patient with Diagnosis of Encounter Performed: P Visit - Diagnostic Evaluation Intervention Performed. risk Assessment before

UXD – Test Case Details

Measure CQL (View Only):

- Can this Measure CQL Tab name be shortened to get back some real estate? e.g.:
 - Measure CGL
 - CQL
- A tooltip can be used in conjunction with the shortened label if we think it is needed

The screenshot shows the MADiE Measure CQL (View Only) interface. The top navigation bar includes 'Measures', 'Libraries', 'Help', 'Connect to UMLS', and a user profile 'Jonathan'. The main header displays the measure title 'Bone density evaluation for patients with prostate cancer and receiving androgen deprivation therapy' along with version '1.4.000', model 'QI-Core v4.1.1', and a date range 'MP: 1/1/2025 - 12/31/2025'. The 'Test Cases (5)' tab is active, showing a list of test cases with columns for 'Profile' and 'Value Set'. A search bar is present above the table. The right sidebar shows the 'Measure CQL (View Only)' tab selected, displaying a list of CQL rules and their associated value sets. The bottom of the interface features 'Run Test', 'Discard Changes', and 'Save' buttons.

Profile	Value Set
Patient	-
Claim	Value Set example
Encounter	Longer Value Set example here
Flag	Another Value Set
Location	Value Set example again

Items per page: 5 1 - 5 of 5

Measure CQL (View Only) Highlighting Expected/Actual Details

```
1 library IntensiveCareUnitVenousThromboembolismProphylaxisFHIR version '0.1.000'
2
3 using QICore version '4.1.1'
4
5 include CQMCommon version '1.1.000' called CQMCommon
6 include FHIRHelpers version '4.2.000' called FHIRHelpers
7 include QICoreCommon version '1.3.000' called QICoreCommon
8 include SupplementalDataElements version '3.2.000' called SDE
9 include TJCOverall version '8.7.000' called TJC
10 include VTE version '8.4.000' called VTE
11
12 codesystem "LOINC": 'http://loinc.org/'
13
14 valueset "Application of Graduated Compression Stockings": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1110.66'
15
16 valueset "Application of Intermittent Pneumatic Compression Devices": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1110.65'
17
18 valueset "Application of Venous Foot Pumps": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1110.64'
19
20 valueset "Atrial Fibrillation or Flutter": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.117.1.1.202'
21
22 valueset "Comfort Measures": 'http://cts.nlm.nih.gov/fhir/ValueSet/1.3.6.1.4.1.33895.1.3.0.45'
23
24 valueset "Direct Thrombin Inhibitor": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.117.1.1.205'
25
26 valueset "Emergency Department Visit": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.117.1.1.292'
27
28 valueset "General or Neuraxial Anesthesia": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.666.5.1743'
29
30 valueset "General Surgery": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.117.1.1.255'
31
32 valueset "Glycoprotein IIb/IIIa Inhibitors": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.117.1.1.255'
33
```

Run Test Discard Changes Save

UXD – Test Case Details (Examples)

The screenshot displays the 'Test Cases (5)' tab in the UXD application. The header bar includes 'Measures', 'Libraries', 'Help', 'Connect to UMLS', and a user profile 'Jonathan'. The main content area shows a list of test cases on the left and a detailed view of a selected test case on the right. The detailed view includes a 'Measure CQL' tab, which is highlighted with a yellow box. The CQL snippet is as follows:

```
1 library IntensiveCareUnitVenousThromboembolismProphylaxisFHIR version '0.1.000'
2
3 using QICore version '4.1.1'
4
5 include CQMCommon version '1.1.000' called CQMCommon
6 include FHIRHelpers version '4.2.000' called FHIRHelpers
7 include QICoreCommon version '1.3.000' called QICoreCommon
8 include SupplementalDataElements version '3.2.000' called SDE
9 include TJCOverall version '8.7.000' called TJC
10 include VTE version '8.4.000' called VTE
11
12 codesystem "LOINC": 'http://loinc.org'
13
14 valueset "Application of Graduated Compression Stockings": 'http://cts.nlm.nih.gov/
15 fhir/ValueSet/2.16.840.1.113762.1.4.1110.66'
16 valueset "Application of Intermittent Pneumatic Compression Devices": 'http://
17 cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1110.65'
18 valueset "Application of Venous Foot Pumps": 'http://cts.nlm.nih.gov/fhir/
19 ValueSet/2.16.840.1.113762.1.4.1110.64'
20 valueset "Atrial Fibrillation or Flutter": 'http://cts.nlm.nih.gov/fhir/
21 ValueSet/2.16.840.1.113883.3.117.1.1.202'
22 valueset "Comfort Measures": 'http://cts.nlm.nih.gov/fhir/
23 ValueSet/1.3.6.1.4.1.33895.1.3.0.45'
24 valueset "Direct Thrombin Inhibitor": 'http://cts.nlm.nih.gov/fhir/
25 ValueSet/2.16.840.1.113883.3.117.1.1.205'
26 valueset "Emergency Department Visit": 'http://cts.nlm.nih.gov/fhir/
27 ValueSet/2.16.840.1.113883.3.117.1.1.292'
28 valueset "General or Neuraxial Anesthesia": 'http://cts.nlm.nih.gov/fhir/
29 ValueSet/2.16.840.1.113883.3.666.5.1743'
30 valueset "General Surgery": 'http://cts.nlm.nih.gov/fhir/
31 ValueSet/2.16.840.1.113883.3.117.1.1.255'
32 valueset "Glycoprotein IIb/IIIa Inhibitors": 'http://cts.nlm.nih.gov/fhir/
33 ValueSet/2.16.840.1.113883.3.117.1.1.256'
```

The bottom of the interface features buttons for 'Run Test', 'Discard Changes', and 'Save'.

This screenshot is similar to the first one, but it includes a tooltip for the 'Measure CQL' tab. The tooltip text is 'Measure CQL (Read Only)'. The CQL snippet is identical to the one in the first screenshot.

UXD – Validation Errors

Validation Errors Tab

- Can errors exist in the tab set or do they need to exist in their own tab?

The screenshot displays the MADiE (Measure Authoring Development Integrated Environment) interface. The main header shows the application name and version (1.4.000). The breadcrumb trail indicates the current location: Home > Measure > Bone density evaluation for patients with prostate cancer and receiving androgen deprivation therapy. The left sidebar contains tabs for Details, CQL Editor, Population Criteria, and Test Cases (5). The right sidebar has tabs for Measure CQL (View Only), Highlighting, Expected/Actual, Details, and Errors (3). The Errors tab is currently selected, showing a list of validation errors. The main content area displays a table of available value sets for the selected measure, with columns for Profile and Value Set. The table lists various value sets, including Patient, Claim, Encounter, Flag, and Location. The bottom of the interface features buttons for Run Test, Discard Changes, and Save.

MADiE | Measure Authoring Development Integrated Environment

Measures Libraries Help Connect to UMLS Jonathan

Home > Measure

Bone density evaluation for patients with prostate cancer and receiving androgen deprivation therapy

Version: 1.4.000 | Model: QI-Core v4.1.1 | MP: 1/1/2025 – 12/31/2025 | In-Use

Details CQL Editor Population Criteria **Test Cases (5)** Display Alerts (3)

Test Cases / Case #1: DENOMPASS - ICUEndOnEncEnd

Elements JSON

Available Added (1)

Search

Q Search

Profile	Value Set
Patient	-
Claim	Value Set example
Encounter	Longer Value Set example here
Flag	Another Value Set
Location	Value Set example again

Items per page 5 1 – 5 of 5

Measure CQL (View Only) Highlighting Expected/Actual Details **Errors (3)**

```
1 library IntensiveCareUnitVenousThromboembolismProphylaxisFHIR version '0.1.000'
2
3 using QICore version '4.1.1'
4
5 include CQMCommon version '1.1.000' called CQMCommon
6 include FHIRHelpers version '4.2.000' called FHIRHelpers
7 include QICoreCommon version '1.3.000' called QICoreCommon
8 include SupplementalDataElements version '3.2.000' called SDE
9 include TJCOverall version '8.7.000' called TJC
10 include VTE version '8.4.000' called VTE
11
12 codesystem "LOINC": 'http://loinc.org'
13
14 valueset "Application of Graduated Compression Stockings": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1110.66'
15
16 valueset "Application of Intermittent Pneumatic Compression Devices": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1110.65'
17
18 valueset "Application of Venous Foot Pumps": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1110.64'
19
20 valueset "Atrial Fibrillation or Flutter": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.117.1.1.202'
21
22 valueset "Comfort Measures": 'http://cts.nlm.nih.gov/fhir/ValueSet/1.3.6.1.4.1.33895.1.3.0.45'
23
24 valueset "Direct Thrombin Inhibitor": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.117.1.1.205'
25
26 valueset "Emergency Department Visit": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.117.1.1.292'
27
28 valueset "General or Neuraxial Anesthesia": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.666.5.1743'
29
30 valueset "General Surgery": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.117.1.1.255'
31
32 valueset "Glycoprotein IIb/IIIa Inhibitors": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.117.1.1.255'
33
```

Run Test Discard Changes Save

UXD – Validation Errors (Shortened Tab)

Measures Libraries Help Connect to UMLS Jonathan

prostate cancer and receiving androgen deprivation therapy

2/31/2025 In-Use

Test Cases (5) Display Alerts (3)

Search →

CQL Highlighting Expected/Actual Details Errors (4) →

1 library IntensiveCareUnitVenousThromboembolismProphylaxisFHIR version '0.1.000'

2

3 using QICore version '4.1.1'

4

5 include CQMCommon version '1.1.000' called CQMCommon

6 include FHIRHelpers version '4.2.000' called FHIRHelpers

7 include QICoreCommon version '1.3.000' called QICoreCommon

8 include SupplementalDataElements version '3.2.000' called SDE

9 include TJCOverall version '8.7.000' called TJC

10 include VTE version '8.4.000' called VTE

11

12 codesystem "LOINC": 'http://loinc.org'

13

14 valueSet "Application of Graduated Compression Stockings": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1110.66'

15

16 valueSet "Application of Intermittent Pneumatic Compression Devices": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1110.65'

17

18 valueSet "Application of Venous Foot Pumps": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1110.64'

19

20 valueSet "Atrial Fibrillation or Flutter": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.117.1.71.202'

21

22 valueSet "Comfort Measures": 'http://cts.nlm.nih.gov/fhir/ValueSet/1.3.6.1.4.1.33895.1.3.0.45'

23

24 valueSet "Direct Thrombin Inhibitor": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.117.1.71.205'

25

26 valueSet "Emergency Department Visit": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.117.1.71.292'

27

28 valueSet "General or Neuraxial Anesthesia": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.666.5.174.3'

29

30 valueSet "General Surgery": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.117.1.71.255'

31

32 valueSet "Glycoprotein IIb/IIIa Inhibitors": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.117.1.71.256'

33

Run Test Discard Changes Save

Measures Libraries Help Connect to UMLS Jonathan

ts with prostate cancer and receiving androgen deprivation therapy

1/1/2025 - 12/31/2025 In-Use

Criteria Test Cases (5) Display Alerts (3)

End

Search →

CQL Highlighting Expected/Actual Details Errors (4) →

This is an info alert - Check it out

This is an warning alert - Check it out

This is an warning alert - Check it out

This is an error Alert - Check it out

example

Value Set example here

Value Set

example again

Run Test Discard Changes Save

User Group Discussion



- Topic suggestions and questions for the User Group can also be submitted through the MADiE Issue Tracker located here:
<https://oncprojecttracking.healthit.gov/support/projects/MADiE/summary>
- Additional questions or comments can be submitted by using the chat feature or unmuting your own line.
- Our next User Group will be held June 19th at 2 pm ET.

PII / PHI

- PHI and PII are prohibited in MADiE.
- Measure testing should only represent synthetic patient test data.
- Report any questions or concerns to the Help Desk.



Resources

MADiE Resources (1 of 4)

The [MADiE public website](#) provides a Login button to access MADiE

The [Training and Resources](#) tab on the public website provides:

- **User Access Guide** – how to get your MADiE account
- **User Guide** – provides details regarding tool functionality
- **JSON Test Case Guide v2.1** – steps for using the JSON test case editor. This document has been updated to include QI-Core v6.0.0 information.
- **Known Issues** – updated regularly
- **MADiE Enhancement Request Form for CMS Contractors** – additional details required when submitting an enhancement request
- **MADiE CMS ID Deletion Request Form v1.0** – to request the CMS ID associated with a draft measure with no prior versions be deleted
- **MADiE Add or Remove Measure and Library Sharing Request Form v1.1**
 - Used to request measures (and the measure's test cases) or libraries to be shared, submitted by or on behalf of the owner via email
- OR
 - Used to request measures (and the measure's test cases) or library sharing access be removed – submitted by or on behalf of the owner or by the user the measure or library is shared with via email
- **MADiE Measure or Library Ownership Transfer Request Form v2.0** – to request transferring ownership of measures (and the measure's test cases) or libraries - form should be submitted by the owner via email
- **MADiE Revert Measure Version Request Form v1.0** – to request a measure version number be reverted to a previous version number if the measure was versioned in error
- **MADiE Independent Testing Supplemental Guide v2.0**
- **Release Notes** – posted with each MADiE release
- **MADiE In Depth Training Videos**
- **External JSON Testing Help Guide** – provides instructions for users to externally test their QI-Core v6.0.0 test case JSON until MADiE can begin performing those validations

MADiE Resources (2 of 4)

MADiE QI-Core Profile Examples – Updated to Include QI-Core v6.0.0

- The MADiE Test Case JSON Guide v2.1, available on the [Training and Resources](#) tab on the public website, has been updated to also provide guidance to aid MADiE users in updating or creating QI-Core v6.0.0 test cases in MADiE.
- The MADiE team has created a measure in MADiE (**QI-Corev6.0.0 Test Case Template**) with an included test case JSON bundle (**QI-Corev6Example Bundle**) which contains entries for many QI-Core v6.0.0 profiles.
- To continue to support QI-Core v4.1.1 test case creation, the measure (**QI-Corev4.1.1 Test Case Template**) with one test case (**QI-Corev4.1.1 Example Bundle version 2**) is available in MADiE.
- The purpose of these test case JSON bundles is to provide users the framework for commonly used QI-Core v4.1.1 and v6.0.0 profiles that can be leveraged with their own test case development.
- The QI-Core profiles examples in the v4.1.1 and the v6.0.0 JSON bundles are for guidance and are not intended to fulfill any measure or testing requirement. Updates to reflect the specific details of your test case will be necessary.
- Measure developers may copy any of the profiles from either of the test cases to your test case(s) (of the same QI-Core version) or use a source code editor (e.g., Notepad++ and Visual Studio Code) and make any updates needed to meet your testing needs. The test cases may also be exported.

MADiE Resources (3 of 4)

MADiE In Depth Training Videos

- Located on the public website [Training and Resources](#) tab
 - [Log In and Measures](#)
 - [QI-Core Test Cases](#)

MADiE Process Workflows:

- [MADiE Help Desk Process](#)
- [MADiE Enhancement Request Process](#)

JIRA Status and Resolution Use Cases

- Located on the [MADiE Issue Tracker](#) Summary page

MADiE Resources (4 of 4)

MADiE 2.2.3

<https://madie.cms.gov>

MADiE Release Schedule

Located on the public website [Training and Resources](#) tab

MADiE Issue Tracker:

<https://oncprojecttracking.healthit.gov/support/projects/MADiE/summary>

eCQI Resource Center:

<https://ecqi.healthit.gov/>