Test protocol for a

ConditionList

The test protocol relates to the following standard:

|  |  |  |  |
| --- | --- | --- | --- |
| Standard’s name ENG | Standard’s name DK | **Version** | **Type** |
| Standard: ConditionList | Diagnoseoversigt | 1.0.1 | HL7 FHIR |

|  |  |  |  |
| --- | --- | --- | --- |
| **Versioning** | | | |
| **Version** | **Initials** | **Date** | **Description** |
| 1.0.0 | TMS, RCH, SKS | 2024-11-15 | First version of test protocol. |
| 1.0.1 | TRI, RCH, SKS | 2025-06-01 | Updated section 1.5 with list of example files.  Updated all test steps according to the list of example files.  Added test step 3.2.1.8 which tests no display of a Condition.note which is included in the ConditionList.  Replaced previous sections 3.3.3 and 3.3.4 with one section, which loads one diagnosis card containing several diagnoses with missing and incomplete data.  Removed previous test steps regarding Condition.clinicalStatus and Bundle.timestamp. Updated table 1.5.  Corrected spelling and wording throughout the protocol.  Added test step 3.3.4.2.  Removed word “only” from test steps that must display condition contents and added text: “code.display must not be shown.”  Added test step 3.2.2.6  Added optional test step 3.2.1.2 |

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# Introduction

This is a test protocol for Receiving a ConditionList.

All documentation concerning ConditionList and Governance (see [Background material](#_Baggrundsmaterialer_1)) will be the subject of testing, and the test protocol will be continuously updated to reflect the requirements in the best way possible.

Versioning of the test protocol will follow the major- and minor-version of the standard but may have a patch version that is different from the standard’s patch-version.

The ConditionList is a FHIR document that will be shared over the national service platform (NSP) for document exchange. The vendor should expect to be tested in the IHE-XDS-metadata, to ensure that the document is requested and retrieved correctly. A link to the IHE-XDS-metadata test protocol can be found under [Background materials](#_Background_materials).

The term ‘Diagnosis Card’ refers to the diagnoses selected by the patient’s general practitioner (GP) in the GP’s system. The diagnosis being shared will be exchanged using the ConditionList standard and can be viewed by citizens and healthcare professionals in the shared diagnosis overview.

## Purpose

The test protocol forms the basis for the tests, which must ensure that SUT complies with the established rules and requirements for the standard. The test protocol also forms the basis for the self-test that vendor carries out prior to a live test.

## Prerequisites for live test

Testing is performed by both the Danish Health Data Agency (Danish: Sundhedsdatastyrelsen) and MedCom. A description of the entire setup, can be found on NSPOP, see [Background materials](#_Background_materials).

The following prerequisites must be met prior to the live test:

1. The vendor has read the following standard documentation:
   * [Clinical guidelines for application](#_Baggrundsmaterialer_1)
   * [Use cases](#_Baggrundsmaterialer_1)
   * [Implementation Guide](#_Baggrundsmaterialer_1)
   * [Governance](#_Baggrundsmaterialer_1)
   * And other relevant materials, cf. the [background material](#_Baggrundsmaterialer_1).
2. The vendor has performed [self-test](#_Dokumentation_af_egentest), approved by MedCom.
3. The vendor has created the [relevant test persons](#_Testeksempler_og_testpersoner) in system under test (SUT).
4. The vendor uses the same version of SUT during self-test and live test.
5. Approval requires that the SUT is approved in the MedCom IHE-XDS-metadata standard.

## Documentation of self-test

**Self-test**

**Prior to the test, the vendor must have performed self-test, including successfully completed TouchStone self-tests, which are approved by MedCom.**

The self-test is documented by the vendor completing this test protocol.

For self-tests, only the following column must be completed by the vendor:

* [Current result]: is filled in with the results of the self-test and relevant descriptions.

Other columns are reserved for MedCom.

**During the self-test the vendor must document the test results by saving relevant files and screen dumps, and subsequently send these in a combined ZIP file (together with the completed test protocol) to** [**fhir@medcom.dk**](mailto:fhir@medcom.dk)**.**

Alle filer og skærmdumps skal navngives med:

* Standard name
* The number of the relevant test step
* Consecutive letter
* File type

Eksempel: ConditionList \_3.4\_A.xml or ConditionList\_2.2\_B.png

## Background materials

| **Name** | **Version[[1]](#footnote-2)** | **Link/reference** | **Description** |
| --- | --- | --- | --- |
| ConditionList Dokumentations site |  | <https://medcomdk.github.io/dk-medcom-conditionlist/> | Documentation site with references to all relevant documentation, including:   * Clinical guidelines for application * Use cases * Technical specifications |
| Implementation Guide | 1.0.X | <https://medcomfhir.dk/ig/conditionlist/> |  |
| FHIR Documents | 1.0.X | <http://medcomfhir.dk/ig/document> |  |
| IHE-XDS-metadata test protocols |  | <https://svn.medcom.dk/svn/releases/Standarder/IHE/Testprotokol/> |  |
| NSPOP testing |  | <https://svn.medcom.dk/svn/releases/Standarder/IHE/Testprotokol/> |  |
| SOP for MedCom’s test and certification |  | <http://svn.medcom.dk/svn/qms/Offentlig/SOPer/SOP-7.2-MedComs%20test%20og%20certificering_godkendelse.docx> | Description of test and certification of MedCom standards and other tests courses. |

## Test examples and test persons

|  |  |  |
| --- | --- | --- |
| **Name** | **Link/reference** | **Description** |
| Test examples /FHIR example files | <https://medcomdk.github.io/dk-medcom-conditionlist/assets/TestExamples.zip> | Includes test examples and an overview of all these. |
| Test persons |  | Test person(s) will be provided by MedCom. |

## Test tool

|  |  |  |
| --- | --- | --- |
| **Navne** | **Link/reference** | **Description** |
| FHIR-server with MedCom profiles | <https://fhir.medcom.dk/> | Public server that validates against MedCom's FHIR profiles. It is permitted to use the server for testing the upload/download of FHIR resources. |

## Test Result

The result for each test step is categorized based on the table below:

| **Marking** | **F1** | **F2** | **F3** | **F4** | **Ok** | **Not relevant** |
| --- | --- | --- | --- | --- | --- | --- |
| **Evaluation** | **Critical** | **Serious** | **Significant** | **Less significant** | **Approved** | **Not an error** |

To get the test and certification approved, the test protocol must consist exclusively of [F4] as well as [OK] results. All [F1], [F2] and [F3] must, therefore, be fixed prior to final approval.

For further information, please read [MedCom’s test og certification](#_Baggrundsmaterialer_2).

# Vendor, system under test (SUT) and test result information

## Information about the vendor

This table must be completed by **the vendor** prior to the test.

|  |  |
| --- | --- |
| Company | Completed by vendor |
| Address | Completed by vendor |
| Contact person | Completed by vendor |
| Telephone | Completed by vendor |
| E-mail | Completed by vendor |

## Information about system under test (SUT)

This table must be completed by **the vendor** prior to the test.

|  |  |
| --- | --- |
| System | Completed by vendor |
| Version | Completed by vendor |
| Description | Completed by vendor |
| Test type | Self-test  Final test/certification |

## Information about the test result

Note: This table must be completed by MedCom when the test has been completed.

|  |  |
| --- | --- |
| Test date | 2022-12-31 |
| Test location |  |
| Approved | Yes  No |
| Remarks | Completed by MedCom |
| Carried out by | The name of the fsdMedCom responsible (initials) for this test |

# The test

This section describes the requirements which SUT must meet before final approval.

The test is divided into three sections:

1. Test of requirements for content and flow/workflows, including received receipts
2. Test of technical requirements

Test participants will be asked to complete tests as described in the tables.

## Documentation of the test

**Documentation of the test**

As valid documentation, the test participant or test manager must document completion by continuous screen dumps (.png/.jpeg) and/or files/log files (.xml/.json). **Before the test, it is agreed who is responsible for this.**

The following applies:

* The files must be viewable in a standard tool and must not require further processing by MedCom
* All files and screen dumps must be named with:
  + Standard name
  + The number of the relevant test step
  + Consecutive letter
  + File type

Example: \_3.4\_A.xml or \_2.2\_B.png

If the vendor has documented the test themselves, the files must be sent in a ZIP file to [fhir@medcom.dk](mailto:fhir@medcom.dk).

## Test of requirements for content and flow/workflows

The purpose of these tests is to ensure that the standard is implemented with a satisfactory quality, i.e. that implementation meets the business requirements for flow and content as described in the [clinical guidelines for application](#_Baggrundsmaterialer)  and [use case-material](#_Baggrundsmaterialer)s. These test steps are predominantly targeted testing of the user interface.

The table below reflects the use cases that are tested in relation to content and flow/workflows. The table also shows which example files must be loaded in connection with each test step. An overview of the [example fil](#_Testeksempler_og_testpersoner)es can be found in [Appendix I](#BilagI).

|  |  |  |  |
| --- | --- | --- | --- |
| [**Use case**](#_Baggrundsmaterialer_2) | **Description** | **Section** | **Example file** |
| R1(1) | See diagnosis overview (Loads one diagnosis to the Diagnosis Card) | [3.2.1] | [TestExample\_R1(1)] |
| R1(2) | See diagnosis overview (Loads multiple diagnoses to the Diagnosis Card) | [3.2.2] | [TestExample\_R1(2)] |
| R1(3) | See diagnosis overview (Updates one existing diagnosis in the Diagnosis Card) | [3.2.3] | [TestExample\_R1(3)] |
| R1(4) | See diagnosis overview (Updates multiple existing diagnosis in the Diagnosis Card) | [3.2.4] | [TestExample\_R1(4)] |
| R1(5) | See diagnosis overview (One diagnosis is in the Diagnosis Card is deleted) | [3.2.5] | [TestExample\_R1(5)] |
| R1.A1 | No diagnosis in the diagnosis summary | [3.2.6] |  |

*Tabel 1: Overview table of use cases, being tested*

### R1(1): See diagnosis overview (Loads one diagnosis to the condition overview)

| **Test step #** | **Action** | **Test data** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Load a ConditionList test example | TestExample\_R1(1) | ConditionList test example is loaded. |  | Choose |
|  | *Optional test step:*  Demonstrate that the SUT validates the ConditionList document. |  | The SUT validates the ConditionList document. |  | Choose |
|  | Demonstrate that the user has access to the patient’s condition overview. |  | The user has access to the patient’s condition overview. |  | Choose |
|  | Demonstrate that the correct patient is displayed in the user interface. |  | The correct patient is displayed. |  | Choose |
|  | Demonstrate that the correct organization and date for the last registration (Composition.Date) are displayed in the user interface. |  | The correct organization is displayed with the correct date for the last registration on the patients Diagnosis Card. |  | Choose |
|  | Demonstrate that the following data are displayed in the user interface:   * ICPC2 and SKS-D/ICD10 codes * A text (DA: diagnosetekst) * category:status (DA: Diagnosestatus) * category:type (DA: Diagnosetype) * Date and time of registration (DA: Registreringsdato) * Date and time of diagnosis onset (DA: debutdato) * Date and time of abatement (DA: afslutningsdato)   code.display must not be shown. |  | The correct information for the diagnosis is displayed. |  | Choose |
|  | Demonstrate that when a Condition.note is present in a ConditionList, it is not displayed to the user. |  | When a Condition.note is present in a ConditionList, it is not displayed to the user. |  |  |
|  | Save relevant screenshots and files. |  | All relevant screenshots and files are saved. |  | Choose |

### R1(2): See diagnosis overview (Loads multiple diagnoses to the condition overview)

| **Test step #** | **Action** | **Test data** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Load a ConditionList test example. | TestExample\_R1(2) | ConditionList test example is loaded. |  | Choose |
|  | Demonstrate that the user has access to the patient’s condition overview. |  | The user has access to the patient’s condition overview. |  | Choose |
|  | Demonstrate that the correct patient is displayed in the user interface. |  | The correct patient is displayed. |  | Choose |
|  | Demonstrate that the correct organization and date for the last registration (Composition.Date) are displayed in the user interface. |  | The correct organization is displayed with the correct date for the last registration on the patients Diagnosis Card. |  | Choose |
|  | Demonstrate that the following data for each diagnosis (if present in the test example) are displayed correctly in the user interface:   * ICPC2 and SKS-D/ICD10 codes * A text (DA: diagnosetekst) * category:status (DA: Diagnosestatus) * category:type (DA: Diagnosetype) * Date and time of registration (DA: Registreringsdato) * Date and time of diagnosis onset (DA: debutdato) * Date and time of abatement (DA: afslutningsdato)   code.display must not be shown. |  | The correct information for all the diagnoses is displayed. |  | Choose |
|  | TestExample\_R1(2)contains the element bodySite. Explain how the SUT handles elements that are not Must Support in the standard. |  | *Example: “SUT does not show elements that are not Must Support in the user interface, but displays it as part of the narrative text.”* |  | Choose |
|  | Save relevant screenshots and files. |  | All relevant screenshots and files are saved. |  | Choose |

### 

### R1(3): See diagnosis overview (Updates one existing diagnosis in the condition overview)

| **Test step #** | **Action** | **Test data** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Load a ConditionList test example. | TestExample\_R1(3) | ConditionList test example is loaded. |  | Choose |
|  | Demonstrate that the user has access to the patient’s condition overview. |  | The user has access to the patient’s condition overview. |  | Choose |
|  | Demonstrate that the correct patient is displayed in the user interface. |  | The correct patient is displayed. |  | Choose |
|  | Demonstrate that the correct organization and date for the last update (Composition.Date) are displayed in the user interface. |  | The correct organization is displayed with the correct date for the last update on the patients Diagnosis Card. |  | Choose |
|  | Demonstrate that the following data for each diagnosis (if present in the test example) are displayed correctly in the user interface:   * ICPC2 and SKS-D/ICD10 codes * A text (DA: diagnosetekst) * category:status (DA: Diagnosestatus) * category:type (DA: Diagnosetype) * Date and time of registration (DA: Registreringsdato) * Date and time of diagnosis onset (DA: debutdato) * Date and time of abatement (DA: afslutningsdato)   code.display must not be shown. |  | The correct information for all the diagnoses is displayed. |  | Choose |
|  | Save relevant screenshots and files. |  | All relevant screenshots and files are saved. |  | Choose |

### R1(4): See diagnosis overview (Updates multiple existing diagnosis in the condition overview)

| **Test step #** | **Action** | **Test data** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Load a ConditionList test example. | TestExample\_R1(4) | ConditionList test example is loaded. |  | Choose |
|  | Demonstrate that the user has access to the patient’s condition overview. |  | The user has access to the patient’s condition overview. |  | Choose |
|  | Demonstrate that the correct patient is displayed in the user interface. |  | The correct patient is displayed. |  |  |
|  | Demonstrate that the correct organization and date for the last update (Composition.Date) are displayed in the user interface. |  | The correct organization is displayed with the correct date for the last update on the patients Diagnosis Card. |  |  |
|  | Demonstrate that the following data for each diagnosis (if present in the test example) are displayed correctly in the user interface:   * ICPC2 and SKS-D/ICD10 codes * A text (DA: diagnosetekst) * category:status (DA: Diagnosestatus) * category:type (DA: Diagnosetype) * Date and time of registration (DA: Registreringsdato) * Date and time of diagnosis onset (DA: debutdato) * Date and time of abatement (DA: afslutningsdato)   code.display must not be shown. |  | The correct information for all the diagnoses is displayed. |  | Choose |
|  | Save relevant screenshots and files. |  | Relevant screenshots and files are saved. |  | Choose |

### R1(5): See diagnosis overview (One diagnosis is in the condition overview is deleted)

| **Test step #** | **Action** | **Test data** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Load a ConditionList test example. | TestExample\_R1(5) | ConditionList test example is loaded. |  | Choose |
|  | Demonstrate that the user has access to the patient’s condition overview. |  | The user has access to the patient’s condition overview. |  | Choose |
|  | Demonstrate that a diagnosis has been deleted when compared with the condition overview used in teststep 3.2.4.1. |  | A diagnosis is no longer on the Diagnosis Card. |  | Choose |
|  | Save relevant screenshots and files. |  | Relevant screenshots and files are saved. |  | Choose |

### R1.A1: No diagnosis in the diagnosis summary

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test step #** | **Action** | **Test data** | **Expected result** | **Actual result** | **MedCom assessment** |
|  | Load a patient with no diagnosis card. | Use test patient 3 provided by MedCom. | Patient is loaded. |  | Choose |
|  | Demonstrate that the user does not have access to the patient’s condition overview. |  | The user does not have access to the patient’s condition overview. |  | Choose |

## Test of general technical requirements

The purpose of these test steps is to ensure that the technical requirements are implemented with satisfactory quality, i.e. supports governance.

### Receiving an invalid document

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test step #** | **Action** | **Test data** | **Expected results** | **Actual result** | **MedCom assessment** |
|  | Load an invalid document where the diagnosis status is not available. | TestExample\_invalid | Test example is loaded |  | Choose |
|  | Demonstrate that the system does not show any data from the ConditionList when receiving an invalid document. |  | The system does not load the document. |  | Choose |

### Document format

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test step #** | **Action** | **Test data** | **Expected results** | **Actual result** | **MedCom assessment** |
|  | Demonstrate that SUT can load JSON files. | TestExample\_R1(2) | SUT can load JSON files. |  | Choose |

### Document with missing and incomplete content

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test step #** | **Action** | **Test data** | **Expected results** | **Actual result** | **MedCom assessment** |
|  | Load the ConditionList example. | TestExample\_MissingContent | ConditionList test example is loaded. |  | Choose |
|  | Demonstrate that for each diagnosis   * ICPC2 and SKS-D/ICD10 codes * A text (DA: diagnosetekst)   are displayed correctly in the user interface. |  | The correct information for all the diagnoses is displayed, regardless of data format. |  | Choose |
|  | Save relevant screenshots and files. |  | Relevant screenshots and files are saved. |  | Choose |

### Displaying narrative text

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test step #** | **Action** | **Test data** | **Expected results** | **Actual result** | **MedCom assessment** |
|  | Load the ConditionList example. | TestExample\_R1(2) | ConditionList test example is loaded. |  | Choose |
|  | Demonstrate that the user is able to see the content of all narrative content in the ConditionList, including bodySite\*.  *\*The element is not required in the standard, but extra elements must be shown in the narrative text.* |  | All narrative content from the ConditionList is displayed correctly in the user interface. |  | Choose |
|  | Save relevant screenshots and files. |  | Relevant screenshots and files are saved. |  | Choose |

1. X expresses patch-level versioning, which includes minor fixes that are backward compatible. [↑](#footnote-ref-2)