Test protocol for sending a

CareCommunication

18-01-24

The test protocol relates to the following standard:

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of the standard ENG** | **Name of the standard DK** | **Version** | **Type** |
| Standard: CareCommunication | Korrespondancemeddelelse | 3.0.X | HL7 FHIR |

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | | | |
| **Version** | **Initials** | **Date** | **Description** |
| 2.1.0 | KML/KRC/TMS/OVI | 31-03-2023 | First release |
| 3.0.0 | TMS/KRC | 18-01-2024 | Update of testprotocol in accordance with release 3.0 of the documentation |

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# Introduction

This is a test protocol for sending a CareCommunication (DK: Korrespondancemeddelelse).

All documentation concerning CareCommunication and Governance (see [Background material](#_Baggrundsmaterialer)) 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 versions of the standard but may have a patch version that is different from the standard’s patch version.

**As regards receipt of Acknowledgements**: To be approved, the system under test (SUT) must be approved for receiving the FHIR Acknowledgement (DK: Kvittering). This is described in the test protocol for Acknowledgement..

## 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 vendors carry out prior to a live test.

## Prerequisites for live test

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

1. The vendor has read the following standard documentation, including:
   * [Clinical guidelines](#_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, approved by MedCom
3. The vendor has created relevant test persons in the system under test (SUT)
4. The vendor is using the same version of SUT during self-test and live test
5. Approval requires that the SUT is approved for receiving a FHIR Acknowledgement (DK: Kvittering).

## 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:

* [Test data]: is filled in with the file name(s) which are uploaded and downloaded.
* [Actual result]: is filled in with the results of the self-test and relevant descriptions.

The 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).**

All files and screen dumps must be named with

* Standard name
* The number of the relevant test step
* Consecutive letter
* File type
* Whether SUT is sender (S) or receiver (R) of the standard

*Example: CareCommunication\_ 3.4\_A\_S.xml*

## Background material

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Version** | **Link/reference** | **Description** |
| CareCommunication – documentation side |  | <https://medcomdk.github.io/dk-medcom-carecommunication/> | Documentation site with references to all relevant documentation, including:   * Clinical guidelines for application (Sundhedsfaglige retningslinjer for anvendelse) * Use cases * Technical specifications |
| Implementation Guide |  | <https://medcomfhir.dk/ig/carecommunication/> | The FHIR technical guidelines for the standard. |
| Governance for MedCom FHIR |  | <https://medcomdk.github.io/MedCom-FHIR-Communication/> | Governance for MedCom’s FHIR standards, which describes general rules for all MedCom standards and specific rules for this standard, as well as for sending. |
| 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 test courses. |
| Conversion between formats |  | <https://medcomdk.github.io/dk-medcom-carecommunication/#3-conversion-service> | Is under clarification but is planned in the context of the VANS cooperation. The plan is to ensure conversion from FHIR to OIOXML and OIOXML to FHIR. Attached files and Acknowledgements are also handled via the conversion service. |

## Test examples and test persons

|  |  |  |
| --- | --- | --- |
| **Name** | **Link/reference** | **Description** |
| Test examples | <http://medcomfhir.dk/ig/carecommunicationtestscripts/testexamples.html> | Test examples used during the test and certification. |
| Overview of test persons | <https://www.medcom.dk/opslag/koder-tabeller-ydere/tabeller/nationale-test-cpr-numre> | Overview of national test personal identification numbers which can be used during the test.  **Please notice**: During the test, the vendor must be able to use any of the test persons on the list. |

## Test tools

|  |  |  |
| --- | --- | --- |
| **Name** | **Link/reference** | **Description** |
| FHIR server with MedCom profiles | [insertLink will be provided | Public server that validates against MedCom's FHIR profiles. It is permitted to use the server for testing the upload/download of FHIR resources. |
| TouchStone | <https://touchstone.aegis.net/touchstone/> | Test tool for testing the FHIR standard.  The vendor can get access to TouchStone as an organisation - either through a license that MedCom supplies (inquiry at [fhir@medcom.dk](mailto:fhir@medcom.dk)), or a license in which the vendor has acquired itself.  Find [instructions for TouchStone](https://medcomdk.github.io/MedComLandingPage/assets/documents/TouchStoneGettingStarted.html) here. |
| Touchstone test scripts | <https://touchstone.aegis.net/touchstone/conformance/current?suite=FHIR4-0-1-CareCommunication-v300-Send-Client>  and  <https://medcomfhir.dk/ig/carecommunicationtestscript/> | Test scripts relevant for the standard.  Find [instructions to TouchStone here](https://medcomdk.github.io/MedComLandingPage/assets/documents/TouchStoneGettingStarted.html). |

## Test result

The result for each test step is categorised 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. Thus, All [F1], [F2] and [F3] must be fixed prior to final approval.

When a test step isn’t relevant for the test course, it is noted with ‘Not relevant’.

Approval requires that SUT is approved for receiving a FHIR Acknowledgement (DK: Kvittering).

For further information, please read: [MedCom’s test and](#TestCertificering) certification.

# Information about 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 the 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 test results

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

|  |  |
| --- | --- |
| Test date | 2023-01-01 |
| Test location | Completed by MedCom |
| Approved | Yes  No |
| Remarks | Completed by MedCom |
| Carried out by | Completed by MedCom. The name of the MedCom responsible (initials) for this test is inserted |

# The test

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

The test is divided into three sections:

1. Test of TouchStone testscripts
2. Test of requirements for content and flow/workflows
3. Test of general 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 the test manager must document completion by continuous screen dumps (.png/.jpeg) and/or files/log files (.xml/.json). **Before the test, it is agreed on 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:
  + The name of the standard
  + The number of the relevant test setup
  + Consecutive letter
  + File type
  + Whether SUT is the sender (S) or receiver (R) of the standard

*Example:* *CareCommunication\_ 3.4\_A\_S.xml, CareCommunication \_3.4\_B\_S.xml*

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 TouchStone test scripts

The purpose of these tests is to ensure that SUT generates the message technically correct and complies with the rules in the [Implementation Guide](#_Baggrundsmaterialer).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
|  | Run all test scripts for use cases and user flows in TouchStone. |  | All test scripts completed without errors. |  | Choose |

## Test of requirements to content and flow/workflows

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

The table below lists the use cases which are tested in relation to content and flow/workflows. The table also shows the direct references to the use cases in the [use case material](#_Baggrundsmaterialer).

| **[Use case](#_Baggrundsmaterialer)** | **Description** | **Section** | **Mandatory (M)/ Optional (O)** |
| --- | --- | --- | --- |
| S1 | Send CareCommunication | 3.3.1 | M |
| *S1.A1* | *Send CareCommunication with attached files* | 3.3.2 | M |
| *S1.A2* | *Write topic in the topic box* | 3.3.3 | M |
| *S1.A3* | *Format the message text and insert a table* | 3.3.4 | O |
| *S1.A4* | *Select topic from the list of topics regionally agreed upon* | 3.3.5 | O |
| *S1.A5* | *Select category ”Andet”* | 3.3.6 | M |
| *S1.A6* | *Select category ”Vedr. henvisning” and add priority* | 3.3.7 | M |
| S2 | Reply to a CareCommunication | 3.3.8 | M |
| *S2.A1* | *Reply to CareCommunication with attached files* | 3.3.9 | M |
| *S2.A2* | *Change category and topic in a reply CareCommunication* | 3.3.10 | M |
| *S2.A3* | *Reply to a received OIOXML or EDIFACT message with a CareCommunication* | 3.3.11 | O |
| S3 | Forward CareCommunication | 3.3.12 | O |
| *S3.A1* | *Forward CareCommunication with attached files* | 3.3.13 | O |
| *S3.A2* | *Change category and topic in a forwarded CareCommunication* | 3.3.14 | O |
| *S3.A3* | *Forward a specific part of a CareCommunication thread* | 3.3.15 | O |
| S.CANC | Cancel a sent CareCommunication | 3.3.16 | O |
| S.CORR | Send corrections to a sent CareCommunication | 3.3.17 | O |

Table 1: Table listing the use cases which must be tested

### S1: Send CareCommunication

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Select a test patient and create a new CareCommunication message.  Demonstrate that the information about the test patient is inserted into the message. |  | A CareCommunication message containing the following visible patient information has been created:   * Personal identification number (CPR) * Full name |  | Choose |
|  | Demonstrate that it is mandatory for the user to insert a receiver of the message. |  | CareCommunication contains visible receiver and receiver information:   * Receiver name * Address |  | Choose |
|  | Demonstrate that it is mandatory to select a category from the national list of categories. |  | The list of categories is visible to the user and the user has selected a category which is added to the message. |  | Choose |
|  | Demonstrate that it is optional for the user to write a topic. |  | A topic is not added. |  | Choose |
|  | Demonstrate that it is mandatory for the user to write free text in the message’s text box. |  | The user has written free text in the message’s text box. |  | Choose |
|  | Explain how the sender’s signature is added to the message and from where this information is obtained.  *MedCom recommends that signature, if possible, is automatically filled in by the system. The user must be able to manually add elements which cannot be added automatically by the system, e.g. relevant phone number.* |  | For example, the health professional who wrote the message text is used as the author for the message text and information is automatically retrieved, based on who is logged into the system. |  | Choose |
|  | Demonstrate that the system inserts and displays the following information as the sender’s signature in the message’s message segment.   * Date and time * Author’s name * Author’s Role * Relevant phone number |  | Author’s signature is inserted and visible to the user in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | Choose |
|  | Send the message to the correct receiver once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical references. |  | The message is filled in correctly and sent to the correct receiver. |  | Choose |

### S1.A1: Send CareCommunication with attached files

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
|  | Demonstrate that a CareCommunication with the information from test steps 3.3.1.1-3.3.1.67 has been created. |  | Test steps 3.3.1.1-3.3.1.6 have been completed. |  | Choose |
|  | Demonstrate that the user can attach allowed file types as attachments to the message.  **Note**: The user must not be able to attach other than the allowed file types. |  | The user has attached the allowed file types as attachments to the message.  A list of [allowed file types can be accessed via the IG](https://medcomfhir.dk/ig/terminology/ValueSet-medcom-core-attachmentMimeTypes.html). |  | Choose |
|  | Demonstrate that the SUT automatically inserts message segments with the attached files. |  | Message segments are created and inserted for each attached file. |  | Choose |
|  | Demonstrate that the SUT automatically inserts title and ID on the attached files in the message segment. |  | The SUT has inserted title and ID on the attached files. |  | Choose |
|  | Demonstrate that the SUT automatically displays the title of the attached files to the user. |  | The user can see the title of the attached files. |  | Choose |
|  | Explain how the system handles insertion of author’s name and time of creation for the attached files.  *MedCom recommends that author’s name and time of creation of the attached file are added and enclosed. System functionality automatically filling in author’s name and time of creation is optional. If this functionality is not implemented, the sender is recommended to add this information either in the attached file or as structured information in the message segment for the attached file.*  In case the user may add manually the abovementioned information manually for the attached file:  Demonstrate that the user can choose to write author’s name and time of creation of the attached file. |  | For example, the system supports structured boxes in the message segment for the attached file, where the user can write author’s name and time of creation of the attached file.  Author’s name and time of creation of the attached files are added and are visible. |  | Choose |
|  | Demonstrate that the SUT automatically inserts time of sending the message and attached files. |  | Time of sending is added to the message and the attached files. |  | Choose |
|  | Send the message to the correct receiver.  Send the message to the correct receiver once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical references. |  | The message is filled in correctly and sent to the correct receiver. |  | Choose |

### S1.A2: Add topic in the topic box

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
|  | Demonstrate that a CareCommunication with the information from test steps 3.3.1.1-3.3.1.3 has been created. |  | Test steps 3.3.1.1-3.3.1.5 have been completed. |  | Choose |
|  | Demonstrate that the user fills in the topic box with a topic of the user’s choosing. |  | Topic in the message’s topic box is filled in. |  | Choose |
|  | Demonstrate that it is mandatory for the user to write free text in the message’s text box. |  | The user has written free text in the free text box. |  | Choose |
|  | Demonstrate that the system inserts and displays the following information as the signature of the sender in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | The signature of the author of the message is inserted and visible for the user in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | Choose |
|  | Send the message to the correct receiver once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical references. |  | The message is filled in correctly and sent to the correct receiver. |  | Choose |

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### S1.A3: Format the message text and insert a table

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Explain if SUT supports the entire subset of XHTML formatting, a part of formatting or no formatting.  **Note**: The formatting can be found here [*MedCom’s subset of XHTML for formatting*](https://medcomdk.github.io/dk-medcom-core/assets/documents/MedComCore-Styling_the_XHTML.html)*.* |  |  |  | Choose |
|  | *Go through the following test steps I SUT supports all or some of the formatting:*  Demonstrate that a CareCommunication with the information from test steps 3.3.1.1-3.3.1.5 has been created. |  | Test steps 3.3.1.1-3.3.1.5 have been completed. |  | Choose |
|  | Demonstrate that the user can format text and insert a table in the message’s text box. |  | The user has formatted text in the message’s text box with:   * Bold * Italic * Underline * Strikethrough * Table(s) (with borders and left, right and center alignment) * Lists (Bullets, arabic, no bullets) |  | Choose |
|  | Demonstrate that the system inserts and displays the following information as the signature of the sender in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | The signature of the author of the message is inserted and visible for the user in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | Choose |
|  | Send the message to the correct receiver once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical references. |  | The message is filled in correctly and sent to the correct receiver. |  | Choose |

### S1.A4: Select topic from the list of topics regionally agreed upon

*Go through these test steps if a list of regionally defined topics exists.*

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Create a new CareCommunication message.  Demonstrate that the information about the test patient is inserted into the message. |  | A CareCommunication message containing the following visible patient information has been created:   * Personal identification number (CPR) * Full name |  | Choose |
|  | Demonstrate that it is mandatory for the user to insert a receiver of the message. |  | CareCommunication contains visible receiver and receiver information:   * Receiver name * Address |  | Choose |
|  | Demonstrate that the user can select a topic from the list of regionally defined topics. |  | A list of defined topics is visible to the user and the user has selected a topic from the list. The topic is visible on the message. |  | Choose |
|  | *Go through this test step if an agreement on mapping between topics and categories is available.*  Demonstrate that the SUT automatically inserts the category in the category box which is determined by the topic selected by the user. |  | The category which is mapped with the selected topic is automatically attached and visible in the category box. |  | Choose |
|  | Demonstrate that it is mandatory for the user to write free text in the message text box. |  | The user has written free text in the free text box. |  | Choose |
|  | Demonstrate that the system inserts and displays the following information as the signature of the sender in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | The signature of the author of the message is inserted and visible for the user in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | Choose |
|  | Send the message to the correct receiver once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical references. |  | The message is filled in correctly and sent to the correct receiver. |  | Choose |

### S1.A5: Select category ”Andet”

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Demonstrate that a CareCommunication with the information from test steps 3.3.1.1-3.3.1.5 has been created. |  | Test steps 3.3.1.1-3.3.1.2 have been completed. |  | Choose |
|  | Demonstrate that the user selects the category “Andet” (“other”) from the national list of categories. |  | The list of categories is visible to the user and the user has selected the category “Andet”. |  | Choose |
|  | Demonstrate that it is mandatory for the user to write a topic in the topic box when the category “Andet” is selected. |  | Topic in the message’s topic box is filled in. |  | Choose |
|  | Demonstrate that it is mandatory for the user to write free text in the message’s text box. |  | The user has written free text in the free text box. |  | Choose |
|  | Demonstrate that the system inserts and displays the following information as the signature of the sender in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | The signature of the author of the message is inserted and visible for the user in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | Choose |
|  | Send the message to the correct receiver once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical references. |  | The message is filled in correctly and sent to the correct receiver. |  | Choose |

### S1.A6 Select category ”Vedr. henvisning” and add priority

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
|  | Demonstrate that a CareCommunication with the information from test steps 3.3.1.1-3.3.1.5 has been created. |  | Test steps 3.3.1.1-3.3.1.2 have been completed. |  | Choose |
|  | Demonstrate that it is not possible to add priority when the category is not “Vedr. henvisning” ("regarding referal”). |  | The user cannot select priority when the category is other than “Vedr. henvisning”. |  | Choose |
|  | Demonstrate that the user selects the category “Vedr. henvisning” from the national list of categories. |  | The list of categories is visible for the user and the user has selected ”Vedr. henvisning”. |  | Choose |
|  | Demonstrate that it is optional for the user to write a topic in the topic box. |  | Topic in the message’s topic box is not filled in. |  | Choose |
|  | In addition, demonstrate that the user can add priority when the category ”Vedr. henvisning” has been selected. |  | Priority is visible and in the message. |  | Choose |
|  | Demonstrate that it is mandatory for the user to write free text in the message’s text box. |  | The user has written free text in the free text box. |  | Choose |
|  | Demonstrate that the system inserts and displays the following information as the signature of the sender in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | The signature of the author of the message is inserted and visible for the user in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | Choose |
|  | Send the message to the correct receiver once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical references. |  | The message is filled in correctly and sent to the correct receiver. |  | Choose |

### S2: Reply to a CareCommunication

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Demonstrate that a CareCommunication message has been received. | CareCommunication\_Ex \_new-A | The SUT has notified the user that a CareCommunication has been received. |  | Choose |
|  | Demonstrate that the user chooses to reply to the received CareCommunication. |  | The user has chosen to reply to the received message. |  | Choose |
|  | Demonstrate that the SUT automatically inserts references to the messages received earlier from the same communication flow as well as message segments for the reply. |  | The SUT has generated a reply with the correct technical references to the previous messages in the same communication flow as well as message segments for the reply. |  | Choose |
|  | Demonstrate that the SUT automatically inserts sender of the received CareCommunication, as the receiver. |  | The SUT has automatically added a receiver of the message. |  | Choose |
|  | Demonstrate that the SUT automatically inserts the same category and, if filled in, topic from the received message. |  | Category and topic from the received CareCommunication are automatically added to the reply. |  | Choose |
|  | Demonstrate that category and, if filled in, topic is visible to the user. |  | Category and topic are visible to the user. |  | Choose |
|  | Demonstrate that it is mandatory for the user to write free text in the message’s free text box. |  | The user has written free text in the free text box. |  |  |
|  | Demonstrate that the system inserts and displays the following information as the signature of the sender in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | The signature of the author of the message is inserted and visible for the user in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | Choose |
|  | Send the message to the correct receiver once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical references. |  | The message is filled in correctly and sent to the correct receiver. |  | Choose |
|  | *This test step is optional to support!*  **Reply to a CareCommunication which is not the latest in the message thread.:**  Demonstrate that the user can reply to a CareCommunication which is not the latest in the message thread. The reply will result in a new message thread being created. | CareCommunication\_Ex \_new-B | When the user replies to a CareCommunication which is not the latest in the message thread, SUT creates a new message thread with the reply. |  | Choose |

### S2.A1: Reply to CareCommunication with attached files

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | ***The original message includes an attachment, but no further attachments are added*.**  Demonstrate that a CareCommunication with the information from test steps 3.3.8.1-3.3.8.7 has been created. | CareCommunication\_Ex \_new-attachment-A | Test steps 3.3.8.1-3.3.8.7 have been completed. |  | Choose |
|  | Demonstrate that the SUT automatically inserts and displays previous message segments with attached files from the same communication flow in the reply. |  | The SUT has created a reply with correct technical references to the previous messages from the same communication flow as well as message segments for the reply. |  | Choose |
|  | Demonstrate that the id and title appear on the initially sent attachment, and not the actual content. |  | Title and id of the initially sent attachment is included. Not the base-64-encoded data. |  | Choose |
|  | Demonstrate that the system inserts and displays the following information as the signature of the sender in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | The signature of the author of the message is inserted and visible for the user in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | Choose |
|  | Demonstrate that the SUT automatically inserts time of sending the message and the attached file. |  | Time of sending is added to the message and the attached file. |  | Choose |
|  | Send the message to the correct receiver once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical references. |  | The message is filled in correctly and sent to the correct receiver. |  | Choose |
|  | ***The original message includes an attachment, and more attachments are added***.  Demonstrate that a CareCommunication with the information from test steps 3.3.8.1-3.3.8.7 has been created. | CareCommunication\_Ex\_new-attachment-B | Test steps 3.3.8.1-3.3.8.7 have been completed. |  | Choose |
|  | Demonstrate that the SUT automatically inserts and displays previous message segments with attached files from the same communication flow in the reply. |  | The SUT has created a reply with correct technical references to the previous messages from the same communication flow as well as message segments for the reply. |  | Choose |
|  | Demonstrate that the id and title appear on the initially sent attachment, and not the actual content. |  | Title and id of the initially sent attachment is included. Not the base-64-encoded data. |  | Choose |
|  | Demonstrate that the user can attach a new file to the reply. |  | The user has attached an allowed file type as attachment to the message.  An overview of [allowed file types can be accessed via the IG](https://medcomfhir.dk/ig/terminology/ValueSet-medcom-core-attachmentMimeTypes.html). |  | Choose |
|  | Demonstrate that the SUT automatically inserts a new message segment with the attached file. |  | A new message segment for the attached file has been created and inserted. |  | Choose |
|  | Demonstrate that the SUT automatically inserts title and ID on the attached file. |  | The SUT has inserted title and ID on the attached file. |  | Choose |
|  | Demonstrate that the SUT automatically shows the title on the attached file for the user. |  | The user can see the title on the attached file. |  | Choose |
|  | Demonstrate that the user can choose to add name of the author as well as time of creation of the attached file, cf. test step 3.3.2.6. |  | Name of author as well as time of creation of the attached file is added and visible. |  | Choose |
|  | Demonstrate that the system inserts and displays the following information as the signature of the sender in the message’s message segment:   * Date and time * Author’s name * Role   Relevant phone number |  | The signature of the author of the message is inserted and visible for the user in the message’s message segment:   * Date and time * Author’s name * Role   Relevant phone number |  | Choose |
|  | Demonstrate that the SUT automatically inserts time of sending the message and the attached file. |  | Time of sending is added to the message and the attached file. |  | Choose |
|  | Send the message to the correct receiver once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical references. |  | The message is filled in correctly and sent to the correct receiver. |  | Choose |
|  | ***The original CareCommunication includes no attachments, but one or more attachments are included in the reply.***  Demonstrate that a CareCommunication with the information from test steps 3.3.8.1-3.3.8.7 has been created. | CareCommunication\_Ex\_new-attachment-C | Test steps 3.3.8.1-3.3.8.7 have been completed. |  | Choose |
|  | Demonstrate that the user can attach a new file to the reply. |  | The user has attached an allowed file type as attachment to the message.  An overview of [allowed file types can be accessed via the IG](https://medcomfhir.dk/ig/terminology/ValueSet-medcom-core-attachmentMimeTypes.html). |  | Choose |
|  | Demonstrate that the SUT automatically inserts a new message segment with the attached file. |  | A new message segment for the attached file has been created and inserted. |  | Choose |
|  | Demonstrate that the SUT automatically inserts title and ID on the attached file. |  | The SUT has inserted title and ID on the attached file. |  | Choose |
|  | Demonstrate that the SUT automatically shows the title on the attached file for the user. |  | The user can see the title on the attached file. |  | Choose |
|  | Demonstrate that the user can choose to add name of the author as well as time of creation of the attached file, cf. test step 3.3.2.6. |  | Name of author as well as time of creation of the attached file is added and visible. |  | Choose |
|  | Demonstrate that the system inserts and displays the following information as the signature of the sender in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | The signature of the author of the message is inserted and visible for the user in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | Choose |
|  | Demonstrate that the SUT automatically inserts time of sending the message and the attached file. |  | Time of sending is added to the message and the attached file. |  | Choose |
|  | Send the message to the correct receiver once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical references. |  | The message is filled in correctly and sent to the correct receiver. |  | Choose |

### S2.A2 Change category and topic

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Demonstrate that a CareCommunication with the information from test steps 3.3.8.1-3.3.8.7 has been created. | CareCommunication\_Ex \_new-change-A | Test steps 3.3.8.1-3.3.8.7 have been completed. |  | Choose |
|  | Demonstrate that the SUT automatically inserts references to the previous messages from the same communication flow as well as message segments for the reply. |  | The SUT has created a reply with the correct technical references to the previous messages from the same message flow as well as message segments for the reply. |  | Choose |
|  | Demonstrate that the SUT automatically inserts sender of the received CareCommunication, as the receiver. |  | The SUT has automatically added a receiver of the message. |  | Choose |
|  | Demonstrate that the SUT automatically inserts the same category and, if filled in, topic from the received message. |  | Category and topic from the received CareCommunication are automatically added to the reply. |  | Choose |
|  | Demonstrate that category and, if filled in, topic is visible to the user. |  | Category and topic are visible for the user. |  | Choose |
|  | Demonstrate that the user can change category and add a new topic in the reply. |  | The category has changed, and a new topic is added. |  | Choose |
|  | Demonstrate that it is mandatory for the user to write free text in the message’s text box. |  | The user has written free text in the free text box. |  | Choose |
|  | Demonstrate that the system inserts and displays the following information as the signature of the sender in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | The signature of the author of the message is inserted and visible for the user in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | Choose |
|  | Send the message to the correct receiver once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical references. |  | The message is filled in correctly and sent to the correct receiver. |  | Choose |

### S2.A3: Reply to a received OIOXML or EDIFACT message with a CareCommunication

Go through these test steps if SUT supports replying to an OIOXML and/or EDIFACT message.

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Load the text example of a received MedCom message in the format of OIOXML and/or EDIFACT. | CareCommunication\_Ex \_oioxml  CareCommunication\_Ex \_edifact | Test example is correctly loaded.  The SUT has notified the user that a MedCom message has been received. |  | Choose |
|  | Demonstrate that the user chooses to send a reply to the received MedCom message with a CareCommunication. |  | The SUT supports the reply to a received OIOXML or EDIFACT message with a new CareCommunication.  The user has chosen to reply to the received message with a CareCommunication. |  | Choose |
|  | Demonstrate that the SUT automatically adds the ID from the received message to the reply.  For example, episode of care identifier, referral ID or contact ID (depends on the received message type) is automatically used and sent in the reply. |  | The SUT has added the correct ID from the received message to the reply. |  | Choose |
|  | Demonstrate that the SUT automatically inserts sender of the received message, as the receiver, via look-up in SOR. |  | The SUT has automatically inserted the correct receiver of the reply. |  | Choose |
|  | Demonstrate that it is mandatory for the user to add a category and topic if relevant on the reply. |  | Category is added and is visible to the user. |  | Choose |
|  | Demonstrate that it is mandatory for the user to write free text in the message’s text box. |  | The user has written free text in the free text box. |  | Choose |
|  | Demonstrate that the system inserts and displays the following information as the signature of the sender in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | The signature of the author of the message is inserted and visible for the user in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | Choose |
|  | Send the message to the correct receiver once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical references. |  | The message is filled in correctly and sent to the correct receiver. |  | Choose |

### S3: Forward CareCommunication

*Go through these test steps if SUT supports forwarding CareCommunications.*

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Demonstrate that a CareCommunication message has been received. | CareCommunication\_Ex\_ new-C | The SUT has notified the user that a CareCommunication has been received. |  | Choose |
|  | Demonstrate that the user chooses to forward the message. |  | A message to be forwarded has been created. |  | Choose |
|  | Explain how the SUT handles the forwarding when the user chooses to forward a CareCommunication.  *The SUT must support forwarding of the whole message string which can consist of one or more messages. It is optional if the system supports forwarding of some parts of the message string.* |  | For example, the user has chosen to forward the whole message string to a new receiver. |  | Choose |
|  | Demonstrate that the SUT, in the message to be forwarded, automatically inserts and shows references to the previous message(s) from the same communication flow as well as message segments, meaning message text and signature from the original sender and, if relevant, attached files. |  | The SUT has created a forward CareCommunication with the correct technical references to the previous messages from the same communication flow as well as message segments. |  | Choose |
|  | Demonstrate that the SUT automatically inserts the same category and, if filled in, topic from the received message. |  | Category and topic from the received CareCommunication are automatically inserted in the forwarded CareCommunication. |  | Choose |
|  | Demonstrate that category and, if filled in, topic is visible to the user. |  | Category and topic are visible to the user. |  | Choose |
|  | Demonstrate that the user must insert a new receiver to forwarded message. |  | A receiver has been added to the message to be forwarded. |  | Choose |
|  | Demonstrate that the user writes the reason for the forward and, if relevant, additional text in the message’s text box. |  | A new message segment has been generated and includes the reason for the forward and, if relevant, additional text in the message’s text box. |  | Choose |
|  | Demonstrate that the system inserts and displays the following information as the signature of the sender in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | The signature of the author of the message is inserted and visible for the user in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | Choose |
|  | Send the message to the correct receiver once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical references. |  | The message is filled in correctly and sent to the correct receiver. |  | Choose |

### S3.A1: Forward CareCommunication with attached files

*Go through these test steps if SUT supports forwarding CareCommunications.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
|  | Demonstrate that a CareCommunication with the information from test steps 3.3.12.1-3.3.12.8 has been created. | CareCommunication\_Ex\_ new-attachment-D | Test steps 3.3.12.1-3.3.12.8 have been completed. |  | Choose |
|  | Demonstrate that the user can attach a new file to the message. |  | The user has attached an allowed file type as attachment to the message.  An overview of [allowed file types can be accessed via the IG](https://medcomfhir.dk/ig/terminology/ValueSet-medcom-core-attachmentMimeTypes.html). |  | Choose |
|  | Demonstrate that the SUT automatically inserts a new message segment with the attached file to the message. |  | A new message segment for the attached file has been created and inserted. |  | Choose |
|  | Demonstrate that the SUT automatically inserts title and ID on the attached file. |  | The SUT has inserted title and ID on the attached file. |  | Choose |
|  | Demonstrate that the SUT automatically displays the title of the attached files to the user. |  | The user can see the title of the attached files. |  | Choose |
|  | Demonstrate that the user can choose to write the name of the author and time of creation of the attached file as per test step 3.3.2.6. |  | The name of the author and time of creation of the attached file are added and visible. |  | Choose |
|  | Demonstrate that the system inserts and displays the following information as the signature of the sender in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | The signature of the author of the message is inserted and visible for the user in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | Choose |
|  | Demonstrate that the SUT automatically inserts the time the message and the attached files are sent. |  | The time of the sent message is added to the message and the attached files. |  | Choose |
|  | Send the message to the correct receiver once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical references. |  | The message is filled in correctly and sent to the correct receiver. |  | Choose |

### S3.A2: Change category and topic in a forwarded message

*Go through these test steps if SUT supports forwarding CareCommunications.*

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Demonstrate that a CareCommunication with the information from test steps 3.3.12.1-3.3.12.6 has been created. | CareCommunication\_Ex\_ new-change-B | Test steps 3.3.12.1-3.3.12.6 have been completed. |  | Choose |
|  | Demonstrate that the user can change category and write a new topic in forwarded message. |  | Category has been changed and a new topic has been added to the forwarded message. |  | Choose |
|  | Demonstrate that the user must select a new receiver of the message to be forwarded. |  | A receiver has been added to the forwarded message. |  | Choose |
|  | Demonstrate that the user writes the reason for the forward and additional text in the message’s text box. |  | A new message segment has been generated and it includes the reason for the forward and additional text in the message’s text box. |  | Choose |
|  | Demonstrate that the system inserts and displays the following information as the signature of the sender in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | The signature of the author of the message is inserted and visible for the user in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | Choose |
|  | Send the message to the correct receiver once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical references |  | The message is filled in correctly and sent to the correct receiver. |  | Choose |

### S3.A3: Forward a specific part of a CareCommunication thread

*Go through these test steps if the SUT has implemented the option to select which parts of the message string and attached files that should be forwarded.*

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Demonstrate that a CareCommunication with the information from test steps 3.3.12.1-3.3.12.4 has been created. | CareCommunication\_Ex\_ new-part-A | Test steps 3.3.12.1-3.3.12.4 has been completed. |  | Choose |
|  | Demonstrate that the user chooses to forward a specific CareCommunication message, received with attached files, which are part of the message string. |  | The user has the option to forward a specific message from the message string. |  | Choose |
|  | Demonstrate that the SUT automatically inserts the same category and, if filled in, topic from the received message. |  | Category and topic from the received CareCommunication are automatically inserted in the reply. |  | Choose |
|  | Demonstrate that category and, if filled in, topic is visible to the user. |  | Category and topic are visible to the user. |  | Choose |
|  | Demonstrate that the user selects which files that should be attached and sent. |  | The user can select which files from previous messages that should be attached and forwarded. |  | Choose |
|  | Demonstrate that the SUT automatically inserts new message segments with the attached files to the message. |  | Message segments for the attached files have been created and inserted. |  | Choose |
|  | Demonstrate that the SUT automatically inserts title and ID on the attached file. |  | The SUT has inserted title and ID on the attached file. |  | Choose |
|  | Demonstrate that the SUT automatically displays the title of the attached files to the user. |  | The user can see the title of the attached files. |  | Choose |
|  | Demonstrate that the user can choose to write the name of the author and time of creation of the attached file as per test step 3.3.2.6. |  | The name of the author and time of creation of the attached file are added and visible. |  | Choose |
|  | Demonstrate that the user must insert a new receiver to the forwarded message. |  | A receiver has been added to the message to be forwarded. |  | Choose |
|  | Demonstrate that the user writes the reason for the forward and, if relevant, additional text in the message’s text box. |  | A new message segment has been generated and includes the reason for the forward and, if relevant, additional text in the message’s text box. |  | Choose |
|  | Demonstrate that the system inserts and displays the following information as the signature of the sender in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | The signature of the author of the message is inserted and visible for the user in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | Choose |
|  | Demonstrate that the SUT automatically inserts the time the message and the attached files are sent. |  | The time of the sent message is added to the message and the attached files. |  | Choose |
|  | Send the message to the correct receiver once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical references. |  | The message is filled in correctly and sent to the correct receiver. |  | Choose |

### S.CANC: Cancel a sent CareCommunication

*Go through these test steps if SUT supports sending cancellations.*

*A message must be annulled if the message is sent based on a wrong personal identification number, a wrong receiver or if a file contains information from a wrong personal identification number.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
|  | Demonstrate that a CareCommunication with the information from test steps 3.3.1.1-3.3.1.8 has been created. |  | Test steps 3.3.1.1-3.3.1.8 have been completed. |  | Choose |
|  | Explain how the SUT handles *cancellation* of messages sent previously. |  | If the user requests to make an *cancellation*, the SUT enables the user to cancel the selected message. |  | Choose |
|  | Demonstrate that the user chooses to cancel a CareCommunication sent previously. |  | It is optional if the SUT offers functionality that enables the user to cancel all messages which are sent in a message thread, however each message must be cancelled individually.  The SUT has recorded the cancellation of a previously sent CareCommunication by the user. |  | Choose |
|  | Demonstrate that the SUT automatically adds the required technical references to the cancelled message. |  | The SUT has filled in the required technical references via Provenance references. |  | Choose |
|  | Explain how the SUT handles and shows the reason for the cancellation in the user interface.  *It is recommended that the SUT uses MedCom’s predefined phrases with reasons for cancellation which are automatically inserted when a message is cancelled. If the system does not use the predefined phrases with reasons for cancellation from MedCom’s list, it is recommended that the system itself defines and automatically inserts the reasons for cancellation.* |  | For example, the SUT uses MedCom’s list with predefined phrases with reasons for cancellation which the user can choose from – or the SUT itself defines and automatically inserts reasons for cancellation.  Click here to read the predefined texts with reasons for cancellation. |  | Choose |
|  | Demonstrate that the system inserts and displays the following information as the signature of the sender in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | The signature of the author of the message is inserted and visible for the user in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | Choose |
|  | Demonstrate that the SUT can send the cancellation linked to a CareCommunication which has been sent already.  *The previous and following message segments and history must be included in the cancellation message*. |  | A cancellation of a CareCommunication which has been sent already has been correctly sent. |  | Choose |
|  | Demonstrate that the status of the message thread containing the cancelled message is marked as ‘cancelled’. |  | The status of the message thread is marked as cancelled. |  | Choose |
|  | Demonstrate that the user cannot send a reply, forward, correction or cancellation in the message thread, after the cancellation has been sent. |  | The user cannot send a reply, correction, forward, correction or cancellation after the cancellation has been sent. |  | Choose |

### S.CORR: Send corrections to a sent CareCommunication

*Go through these test steps if SUT supports sending correction.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
|  | Demonstrate that a CareCommunication with the information from test step 3.3.1.1-3.3.1.8 has been created. |  | Test step 3.3.1.1-3.3.1.8 has been completed. |  | Choose |
|  | Demonstrate that the user can choose to make corrections in a CareCommunication which has already been sent.  *A correction is sent if a user requests to correct the text in the message text box, change category and/or topic or correct the content of an attached file.* |  | The SUT has registered that the user chooses to correct a CareCommunication already sent. |  | Choose |
|  | Demonstrate that the SUT automatically inserts the original topic and category in the message for the correction unless the correction is a change of topic or category. |  | The SUT has inserted the original topic and category in the message for the correction. |  | Choose |
|  | Demonstrate that the SUT automatically adds to the message the required technical references to the messages which is corrected. |  | The SUT has filled in the required technical references via Provenance references. |  | Choose |
|  | Demonstrate that the user can write a text in the message text box, explaining that the correction concerns. |  | The user has explained what the correction concerns in the message text box which means that the correction is visible to the receiver. |  | Choose |
|  | Demonstrate that the system inserts and displays the following information as the signature of the sender in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | The signature of the author of the message is inserted and visible for the user in the message’s message segment:   * Date and time * Author’s name * Role * Relevant phone number |  | Choose |
|  | Demonstrate that the SUT can send the correction linked to a CareCommunication which has been sent already. |  | A correction to a CareCommunication which has been sent already has been correctly sent. |  | Choose |
|  | Demonstrate that the status of the message thread containing the corrected message is marked as ‘corrected. |  | The status of the message thread is marked as corrected. |  | Choose |
|  | Demonstrate that the user cannot send a reply or forward in the message thread, after the correction has been sent. |  | The user cannot send a reply or correction after the correction has been sent. |  | Choose |

## Test of general technical requirements

The purpose of these test steps is to ensure that the technical sending of a CareCommunication is implemented with satisfactory quality, i.e., that it meets the governance for message communication on a general level as well as governance for CareCommunication as described in 1.4 Background materia.

### Test of requirements for content and recommendations

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
|  | **Sender and recipient**  Explain the use of recipient (Communication.recipient) and to what degree it is possible for the user to add a more specific recipient than the one indicated for sending in (MessageHeader.destination.receiver). |  | For example, “*the end user can add a person or name a CareTeam as recipient*.” |  | Choose |
|  | Explain the use of specific sender (Communication.extension.sender) and to what degree it is possible for the user to add a more specific sender than the one indicated for sending in (MessageHeader.sender). |  | For example, “*the user can add a person or name a CareTeam as sender.*” |  | Choose |
|  | *Test steps* 3.3.1.1-3.3.1.7 *must be completed if the SUT user is able to add a sender or recipient.*  Create a CareCommunication message. |  | Test steps 3.3.1.1-3.3.1.7 have been completed. A CareCommunication message has been created. |  | Choose |
|  | Add specific sender and/or recipient. |  | Sender and/or recipient has been added. |  | Choose |
|  | Demonstrate that the message can be sent once the message reaches the requirements for content as well as maximum limitation of 100 MB and includes correct technical correspondence string. |  | The message is filled in correctly and sent.  The correspondence string is automatically enclosed. |  | Choose |
|  | **Time**  Explain when the following timestamps are added in the SUT’s generation of a message:   * Communication.payload.extension.date * Bundle.timestamp * Provenance.occurredDateTime * Provenance.recorded * Communication.payload. contentAttachment.creation (optional and only relevant for attachments) |  | For example: “*Communication.payload. ContentAttachment.creation indicates date of creation of an attached file. The other timestamps are identical.*” |  | Choose |
|  | **Use of EpisodeOfCareIdentifier**  A patient can have an EpisodeOfCare-identifier (DK: forløbsID) that is related to for example an admission.  If relevant, demonstrate how SUT includes the EpisodeOfCare-identifier in a CareCommunication. |  | SUT includes an EpisodeOfCare-identifier in the CareCommunication |  | Choose |
|  | When replying to CareCommunication with an EpisodeOfCare-identifier, SUT must include the EpisodeOfCare-identifier in the reply.  Demonstrate that SUT includes the EpisodeOfCare-identifier in the reply. | CareCommunication\_Ex\_Tek-new-episodeOfCare-A | The EpisodeOfCare-identifier from the original message is included in the reply. |  | Choose |
|  | *Complete if SUT supports forwarding:*  When forwarding to CareCommunication with an EpisodeOfCare-identifier, SUT must include the EpisodeOfCare-identifier in the forwarding.  Demonstrate that SUT includes the EpisodeOfCare-identifier in the forwarding. | CareCommunication\_Ex\_Tek-new-episodeOfCare-B | The EpisodeOfCare-identifier from the original message is included in the forwarding. |  | Choose |
|  | *Complete if SUT supports sending corrections:*  When sending a correction to CareCommunication with an EpisodeOfCare-identifier, SUT must include the EpisodeOfCare-identifier in the correction.  Demonstrate that SUT includes the EpisodeOfCare-identifier in the correction. |  | The EpisodeOfCare-identifier from the original message is included in the correction. |  | Choose |
|  | *Complete if SUT supports sending cancellations:*  When sending a cancellation to CareCommunication with an EpisodeOfCare-identifier, SUT must include the EpisodeOfCare-identifier in the cancellation.  Demonstrate that SUT includes the EpisodeOfCare-identifier in the cancellation. |  | The EpisodeOfCare-identifier from the original message is included in the cancellation. |  | Choose |

### Use of terminology

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Explain how the SUT uses terminology from MedCom’s terminology server. |  | For example: “*the SUT has a local copy of relevant ValueSets. This is retrieved for the SUT via MedCom’s terminology server*.” |  | Choose |
|  | Explain how terminology in the SUT is updated. For example, if the list of categories is updated. |  | For example: ”*It requires an update of the codes, which can be published with a new release*” |  | Choose |

### References to previous messages / Use of Provenance

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | When replying a message, the following must be included from previous messages:   * Message segments are in the same Communication instance, which include id and title of attachments, message text and related author * Addition of a new Provernance instance belonging to the new message, which also refers to MessageHeader.id from the previous message. |  | All message segments are in the same instance of Communication and a new instance of Provernance is added with the correct references to the previous message. |  | Choose |
|  | When forwarding a message, the following must be included from previous messages:   * Message segments are in the same Communication instance, which include attachments, message text and related author * Addition of a new Provernance instance belonging to the new message, which also refers to MessageHeader.id from the previous message. |  | All message segments are in the same instance of Communication and a new instance of Provernance is added with the correct references to the previous message. |  | Choose |
|  | When correcting a message, the following must be included from previous messages:   * The message segment that is being corrected are in the same Communication instance, which includes the correction and/or explanation of the correction * At least two Provenance instances, one representing the message being corrected and one representing the correction. |  | Message segment, topic or category that is being corrected are in the same instance of Communication as the explanation of the correction and a new instance of Provernance is added with the correct references to the corrected message.  Additionally, the message has a new instance of Provernance which is added with the correct references to the previous message. |  | Choose |
|  | When cancelling a message the following must be included from previous messages:   * The cancellation message in a separate Communication instance, where Communication.status ‘entered-in-error’ including the reason for cancellation. * A Provenance instance belonging to the cancellation message, which also refers to MessageHeader.id from the previous message. |  | The cancellation contains two Communication instances – one with the message which has been cancelled with status ‘unknown’, and one with a message text about the cancellation with the status ’entered-in-error’.  Additionally, the message has a new instance of Provernance which is added with the correct references to the previous message. |  | Choose |

### Check of message size

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Demonstrate that a CareCommunication with the information from test steps 3.3.1.1-3.3.1.67 has been created. |  | A CareCommunication message has been created. |  | Choose |
|  | Add attached files and text, making the total message size exceed 100 MB or another agreed limit, which ensures that the message will not be sent. |  | Attached files and text, exceeding 100 MB in total, have been added to the message. |  | Choose |
|  | Demonstrate that the user is informed about that the message cannot be sent, as the message exceeds 100 MB. |  | The user is informed that the message cannot be sent, as the size limit for the message has been exceeded. |  | Choose |
|  | Demonstrate that the message cannot be sent. |  | The message cannot be sent. |  | Choose |
|  | Demonstrate that the message can be sent when the message meets the requirements for content and a maximum size of 100 MB. |  | The message can now be sent to the correct receiver. |  | Choose |
|  | Explain how the SUT checks that the message cannot be sent if the size exceeds the maximum of 100 MB. |  | For example, the message’s total size is checked before sending. |  | Choose |

### Sending and embedment in a VANSEnvelope.

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom assessment** |
| --- | --- | --- | --- | --- | --- |
|  | **Identify receiver**  Explain how correct receiver is selected and added to the message. |  | For example, SOR look-up. |  | Choose |
|  | **Correct embedment of message in VANSEnvelope**  Demonstrate that a CareCommunication with the information from test steps 3.3.1.1-3.3.1.5 has been created. |  | A CareCommunication message has been created. |  | Choose |
|  | Demonstrate that the message is embedded in a VANSEnvelope and contains a postfix with the category in the name element.  Note: Specifications of VANSEnvelope are described in ’Governance for MedCom FHIR messaging’ in Background materia. |  | The message is valid and embedded correctly in a VANSEnvelope.  VANSEnvelope contains:   * Format * Name (incl. postfix with the category) * Version |  | Choose |