Test protocol for the sending of a

HospitalNotification message

02-05-2024

This test protocol relates to the following standard:

|  |  |  |  |
| --- | --- | --- | --- |
| **Standard’s name ENG** | **Standard’s name DK** | **Version** | **Type** |
| Standard: HospitalNotification | Advis om sygehusophold | 3.0.X | HL7 FHIR |

|  |  |  |  |
| --- | --- | --- | --- |
| **Versioning** | | | |
| **Version** | **Initials** | **Date** | **Description** |
| 3.0.0 | MBK/TMS/MBU | 06-01-2023 | The content of the original test protocol has been transferred to the new template for testing MedCom’s FHIR standards. Clarifications, minor error corrections and layout adjustments have been made. In addition, test steps relating to correct use of time stamps have been added (General technical requirements). |
| 3.0.1 | MBK/TMS | 27-01-2023 | Test steps that test that no corrections are sent to a HospitalNotification message, if the patient has already been discharged, unless the correction is linked to the specific discharge notification (SLHJ) (Section: Use case S.CORR: Correction/sending of RE\_XX without requesting admission note XDIS16 |
| 3.0.2 | MBK/TMS | 01-05-2023 | Clarification of test step 3.4.9 regarding EpisodeOfCareIdentifier  Links to Touch Stone test scripts has been inserted under Test Tools |
| 3.0.3 | MBK/TMS | August 2023 | Notification statuses have been translated back to Danish, as statuses must be displayed for the user in Danish.  Naming of test files is updated in accordance with MedComs standard operating procedures. |
| 3.0.4 | MBU | 14-12-2023 | Expected result added to test step 3.3.3.1 and test step 3.3.8.3 |
| 3.0.5 | MBK | 02-05-2024 | Added remark about relaxation of requirements for sending corrections to [SLOR] and [MORS], i.e. [RE\_SLOR] and [RE\_MORS].  (Section: Use case S.CORR: Correction/sending of RE\_XX without requesting admission note XDIS16) |

Table of Contents

[1 Introduction 1](#_Toc165550862)

[1.1 Purpose 1](#_Toc165550863)

[1.2 Prerequisites for live test 1](#_Toc165550864)

[1.3 Documentation of self-test 2](#_Toc165550865)

[1.4 Background materials 3](#_Toc165550866)

[1.5 Test examples and test persons 3](#_Toc165550867)

[1.6 Test Tools 4](#_Toc165550868)

[1.7 Test result 5](#_Toc165550869)

[2 Vendor, system under test (SUT) and test result information 6](#_Toc165550870)

[2.1 Information about the vendor 6](#_Toc165550871)

[2.2 Information about system under test (SUT) 6](#_Toc165550872)

[2.3 Information about the test result 6](#_Toc165550873)

[3 The Test 7](#_Toc165550874)

[3.1 Documentation of the test 7](#_Toc165550875)

[3.2 Test of TouchStone testscripts 8](#_Toc165550876)

[3.3 Test of requirements for content and flow/workflows 9](#_Toc165550877)

[3.4 Test of general requirements 27](#_Toc165550878)

# Introduction

This is a test protocol for the sending of a “HospitalNotification”.

All documentation concerning HospitalNotification and Governance (see Background materials) 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.

**Regarding receipt of an Acknowledgement:** Approval requires, that the system under test (SUT) is approved for receiving FHIR Acknowledgement (DK:kvitteringer). This test is managed in a separate test protocol.

## 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 conducts 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, which can be found under Background materials:
   * Clinical guidelines for application
   * Use cases
   * Implementation Guide
   * Governance
   * And other relevant materials, cf. the Background materials.
2. The vendor has performed [self-test](#Egentest) that are approved by MedCom.
3. The vendor has created the [relevant test person](#_Testeksempler_og_testpersoner)s in the SUT.
4. The vendor uses the same version of the SUT during self-test and live test.
5. Approval requires, that the SUT is approved for receiving 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 two columns must be completed by the vendor:

* [Test data]: is filled in with the file name(s), that have been loaded or generated
* [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 test** [**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

Example: HospitalNotification\_3.4\_A.xml or HospitalNotification\_3.4\_B.png

## Background materials

| **Name** | **Version[[1]](#footnote-2)** | **Link/reference** | **Description** |
| --- | --- | --- | --- |
| HospitalNotification – documentation site | 3.0.X | <https://medcomdk.github.io/dk-medcom-hospitalnotification/> | Documentation site with references to all relevant documentation, including:   * Clinical guidelines for application * Use cases * Technical specifications |
| Implementation Guide | 3.0.X | <https://medcomfhir.dk/ig/hospitalnotification/> |  |
| Governance for MedCom FHIR | 1.0.X | <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 the message. |
| SOP for MedCom’s test and certification | 2.7 | <http://svn.medcom.dk/svn/qms/Offentlig/SOPer/SOP-7.2-MedComs%20test%20og%20certificering_godkendelse.docx> | Description of testing and certification of MedCom standards and other tests courses. |

## Test examples and test persons

|  |  |  |
| --- | --- | --- |
| **Name** | **Link/reference** | **Description** |
| Overview of test persons to be used | <https://www.medcom.dk/opslag/koder-tabeller-ydere/tabeller/nationale-test-cpr-numre> | Overview of national test personal identification number (DK:CPR-nummer), that can be used during test.    **Note:** During test and certification, 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 | <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. |
| 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 that the supplier has acquired itself  Find [instructions for TouchStone](https://medcomdk.github.io/MedComLandingPage/assets/documents/TouchStoneGettingStarted.html) here |
| TouchStone test scripts | Link to IG including test scripts and instructions for usage hereof:  <http://medcomfhir.dk/ig/hospitalnotificationtestscripts>/ testexamples.html  Direct link to the test scripts in TouchStone:  [https://touchstone.aegis.net/touchstone/testdefinitions? selectedTestGrp=%2FFHIRSandbox%2FMedCom%2FHospitalNotification& activeOnly=false&includeInactive=false&ps=50&sb=qualifiedName&sd= DESC&allSelected=false&contentEntry=ALL](https://touchstone.aegis.net/touchstone/testdefinitions?%20selectedTestGrp=%2FFHIRSandbox%2FMedCom%2FHospitalNotification&%20activeOnly=false&includeInactive=false&ps=50&sb=qualifiedName&sd=%20DESC&allSelected=false&contentEntry=ALL) | Test scripts relevant for the standard.  Find [instructions for TouchStone](https://medcomdk.github.io/MedComLandingPage/assets/documents/TouchStoneGettingStarted.html) here |

## Test result

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

| **Marking** | **F1** | **F2** | **F3** | **F4** | **Ok** |
| --- | --- | --- | --- | --- | --- |
| **Evaluation** | **Critical** | **Serious** | **Significant** | **Less significant** | **Approved** |

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.

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

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

# 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 | 2023-01-01 |
| Test location |  |
| Approved | Yes  No |
| Remarks | Completed by MedCom |
| Conducted by | The name of the MedCom 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 TouchStone testscripts
2. Test of requirements for content and flow/workflows, including received receipts
3. 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: HospitalNotification\_3.4\_A.xml or HospitalNotification\_3.4\_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 TouchStone testscripts

The purpose of these tests is to ensure that, SUT generates HospitalNotification technically correct, and thus whether the notice complies with the rules in the [Implementation Guiden](#_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 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.

It is up to the individual supplier and customer to decide whether a sent HospitalNotification must be available in the user interface for the end user/health professional at the hospital. The raw data file (with its entire contents) must always be accessible by a technical user.

Table 1 below reflects the cases that are tested in relation to content and flow/workflows. The table also contains the relevant references to the use cases from the [use case-material](#_Baggrundsmaterialer).

In the individual test steps, reference is made to the following HospitalNotification types: [STIN], [STAA], [STOR], [SLOR], [SLHJ], [MORS], [AN\_XX], [RE\_XX]. The description of the HospitalNotification type is available on GitHub (HospitalNotification Codes), see [Background materials](#_Baggrundsmaterialer) .

| [**Use case**](#_Baggrundsmaterialer) | **Description** | **Section** |
| --- | --- | --- |
| S1 | The patient is **admitted**   * Without prior admission * After prior admission to another hospital in another region (transfer between regions) | 3.3.1 |
| S1.A1 | The patient is **admitted**   * After a previous stay in the outpatient department at the same hospital * After a prior admission to another hospital in the same region (transfer between hospitals in the same regions) | 3.3.2 |
| S1.A2 | Patient is **admitted** after prior admission to another department at the same hospital | 3.3.3 |
| S2 | The patient is referred to an acute ambulant hospital stay | 3.3.4 |
| S3 | The patient goes on **leave** from his/her hospital stay | 3.3.5 |
| S4 | The patient returns at the hospital after **leave** | 3.3.6 |
| S5 | The patient is **transferred** to:   * Another department at the same hospital * Another hospital in the same region * Another hospital in another region * Hospice | 3.3.7 |
| S6 | The patient is **discharged**  Also includes:   * If the patient is absent after leave * If the patient manages the transfer/ transport from one hospital to another by him/herself | 3.3.8 |
| S7 | The patient **dies**   * Upon arrival * During hospital stay * During leave | 3.3.9 |
| S.CANC | There is a need to **cancel** aHospitalNotification which has already been sent   * Wrong patient/ personal identification number * Wrong type of hospital stay | 3.3.10 |
| S.CORR | There is a need to correct a HospitalNotification which has already been sent   * Wrong time * Wrong department at the hospital | 3.3.11 |

Table 1: Overview table of the use cases that are tested

### Use case S1: Admission/sending of [STIN] with a request for XDIS16

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom- assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Select a test patient and register the patient as attending and admitted. |  | The patient is registered as admitted to department X, hospital X at HH:MM on DD.MM.YYYY |  | Choose |
|  | Demonstrate that a HospitalNotification of type [STIN] has been created and sent – and that it includes a request for an admission note. | Insert file name | The HospitalNotification of type [STIN] with request for admission note (XDIS16) has been created and sent |  | Choose |
|  | **Admission of a patient who has been transferred from another hospital in another region (transfer between regions)**  Demonstrate or account for how a HospitalNotification of type [STIN] is generated and sent with **a request** for an admission note – in a case where a patient from another hospital in another region is admitted | Insert file name | The HospitalNotification of type [STIN] with request for admission note (XDIS16) has been created and sent |  | Choose |

### Use case S1.A1: Admission/sending [STIN] without requesting an admission note (XDIS16)

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom-assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Select a test patient who is registered as an acute ambulant patient and admit the patient. |  | The patient is registered as admitted to department X, hospital X at HH:MM on DD.MM.YYYY |  | Choose |
|  | Demonstrate that the HospitalNotification of type [STIN] is generated and sent, without request for an admission note. | Insert file name | The HospitalNotification of type [STIN] has been created and sent (without the request for admission note (XDIS16). |  | Choose |
|  | **Admission of a patient who has been transferred from another hospital in the same region (internal transfer within the region)**  Demonstrate or account for how a HospitalNotification of type [STIN] is generated and sent **without a request** for an admission note, in a case where a patient received from another hospital in same region is admitted | Insert file name | The HospitalNotification of type [STIN] has been created and sent (without the request for admission note (XDIS16) |  | Choose |
|  | Demonstrate or account for that SUT reuses the EpisodeOfCareIdentifier from the HospitalNotification sent from the hospital that the patient is transferred from |  | SUT reuses EpisodeOfCareIdentifier from the HospitalNotification sent from the hospital that the patient is transferred from. |  |  |

### Use case S1.A2: Admission without sending a HospitalNotification

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom-assessment** |
| --- | --- | --- | --- | --- | --- |
|  | **Admission of a patient who has been transferred from another department in the same hospital (internal transfer within the same hospital)**  Demonstrate or account for how it is ensured that a HospitalNotification of type [STIN] is not sent when a patient is admitted after prior admission to another department in the same hospital |  | The HospitalNotification **has not been sent** when a patient is admitted after prior admission to another department in the same hospital |  | Vælg |

### Use case S2: Acute ambulant hospital stay /sending of [STAA] with a request for an admission note (XDIS16)

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom-assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Select a test patient and register the patient as attending at the acute ambulant department. |  | The patient is registered as an acute ambulant patient at department X hospital X at HH:MM on DD.MM.YYYY |  | Choose |
|  | Demonstrate that a HospitalNotification of type [STAA] has been created and sent, with a request for an admission note. | Insert file name | The HospitalNotification of type [STAA] with request for admission note (XDIS16) has been created and sent. |  | Choose |

### Use case S3: Start leave/sending a STOR without requesting an admission note (XDIS16)

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom-assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Select a patient who is registered as admitted and now register the patient as on leave from his/her hospital stay. |  | The patient is registered as on leave at HH:MM on DD.MM.YYYY |  | Choose |
|  | Demonstrate, that a HospitalNotification of type [STOR], has been created and sent**, without containing** the request for an admission note. | Insert file name | The HospitalNotification of type [STOR] without request for admission note (XDIS16) has been created and sent. |  | Choose |

### Use case S4: Leave ends /sending a SLOR without requesting an admission note (XDIS16)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom-assessment** |
|  | Select a patient who is registered as on leave and register that the patient returns to the hospital from his/hers leave |  | The patients leave ends at HH:MM on DD.MM.YYYY |  | Choose |
|  | Demonstrate, that a HospitalNotification of type [STOR], has been created and sent**, without containing** the request for an admission note. | Insert file name | The HospitalNotification of type [STOR] without request for admission note (XDIS16) has been created and sent. |  | Choose |

### Use case S5: Transfer of the patient without sending a HospitalNotification

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom-assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Select a patient, who is registered as admitted to department X, hospital X, and transfer this patient to new department Y in the same hospital X  *Alternatively: if the transfer takes place by the department admitting the patient, and it is not possible to change department during the test, then account this* |  | The patient is registered as admitted to department Y, hospital X at HH:MM on DD.MM.YYYY |  | Choose |
|  | Demonstrate that no HospitalNotification of type [SLHJ] has been created and sent from the previous department (X)  *Alternatively: Account for how it is ensured that a HospitalNotification of type [SLHJ] is not sent from the previous department (X).* |  | A HospitalNotification of type [SLHJ] has not been created and sent from the previous department. |  | Choose |
|  | Select a patient who is registered as admitted to hospital X and transfer this patient to a new hospital Y in the same region  Alternatively: If the transfer is handled by the new hospital and it is not possible to change the hospital during the test, then account for this. |  | The patient is registered as admitted to hospital Y at  HH:MM on DD.MM.YYYY |  | Choose |
|  | Demonstrate that no HospitalNotification of type [SLHJ] has been created and sent from the previous hospital (X)  *Alternatively: Account for how it is ensured that a HospitalNotification of type [SLHJ] is not sent from the previous hospital (X).* |  | A HospitalNotification of type [SLHJ] has not been created and sent from the previous hospital. |  | Choose |
|  | Select a patient, who is registered as admitted to hospital X and transfer this patient to a new hospital Y in another region |  | The patient has been discharged from hospital in region X and transferred to another hospital in region Y |  | Choose |
|  | Demonstrate that no HospitalNotification of type [SLHJ] has been created and sent from the previous hospital (X). |  | A HospitalNotification of type [SLHJ] has not been created and sent from the previous hospital |  | Choose |
|  | Select a patient who is registered as admittedand discharge/transfer this patient to hospice.  *Alternatively: If the transfer is handled by the new department and it is not possible to change department during the test, then account for that* |  | The patient has been discharged to hospice |  | Choose |
|  | Demonstrate that no HospitalNotification of type [SLHJ] has been created and sent from the previous department.  *Alternatively: Account for how it is ensured that the HospitalNotification of type [SLHJ] is not sent from the previous department when the patient is discharged to hospice* |  | A HospitalNotification of type [SLHJ] has not been created and sent from the previous department |  | Choose |

### Use case S6: Discharge of patient/sending of [SLHJ] without requesting an admission note (XDIS16)

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom-assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Select a patient, who is registered e.g., as admitted and now discharge the patient to home/primary sector |  | The patient is registered as discharged to home at HH:MM on DD.MM.YYYY |  | Choose |
|  | Demonstrate that a HospitalNotification  of type [SLHJ] is created and sent, without containing request for an admission note.  Note: that MedCom can request the discharge of any hospital stay | Insert file name | A HospitalNotification of type [STIN] is created and sent first (with request for an admission note), then a HospitalNotification of type [SLHJ] is created and sent (but without request for an admission note. |  | Choose |
|  | **Discharge of a patient who is transferred to another hospital but handles the transport her-/himself**  *In cases where the patient handles the transport, himself from hospital X🡪 hospital Y, the hospital from which the patient is being transferred may deviate from the rule not to send a HospitalNotification of the type [SLHJ]. In these cases, the planned transfer must be evident/communicated in a different manner. For example, in a care plan and/or in a clinical email.*  If this is the case, account for how SUT guides the user to ensure that the planned transfer is communicated to the receiver in another way. |  | The SUT clearly communicate to the receiver that there is planned a transfer of the patient to another hospital. |  | Choose |
|  | **Discharge of patient, who is absent after leave**  Select a patient, who is registered as on leave and now register the patient as discharged and sent home. |  | The patient is registered as discharged and sent home at HH:MM on DD.MM.YYYY |  | Choose |
|  | Demonstrate that a HospitalNotification of type [SLHJ], is created and sent, without containing a request for an admission note. |  | First, a HospitalNotification of type [STIN] (with request for an admission note) is created and sent, then possibly a HospitalNotification of type [STOR] (without request for an admission note) and finally a HospitalNotification of type [SLHJ] (without request for admission note) is created and sent |  | Choose |

### Use case S7: Dead/sending of [MORS] without requesting an admission note (XDIS16)

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom-assessment** |
| --- | --- | --- | --- | --- | --- |
|  | **The patient has died upon arrival at hospital**  Select a test patient and register the patient as dead (upon arrival) |  | The patient has been registered as dead at HH:MM on DD.MM.YYYY |  | Choose |
|  | Document that a HospitalNotification of type [MORS] is created and sent (without containing request for an admission note) | Insert file name | A HospitalNotification of type [MORS] is created and sent (without containing request for an admission note) |  | Choose |
|  | **The patient dies during the hospital stay**  Select a patient who is registered as admitted and now register the patient as dead (during admission) |  | The patient has been registered as dead on HH:MM on DD.MM.YYYY |  | Choose |
|  | Demonstrate that a HospitalNotification of type [MORS], without request for an admission note, is created, and sent. | Insert file name | First, a HospitalNotification of type [STIN] is created and sent, then a HospitalNotification of type [MORS ] without request for an admission note |  | Choose |
|  | **The patient dies during leave.**  Select a patient who is registered as on leave, and now register the patient as dead |  | The patient has been registered as dead on HH:MM on DD.MM.YYYY |  | Choose |
|  | Demonstrate that a HospitalNotification of type [MORS], that does not contain a request for an admission note, is created, and sent. | Insert file name | First, a HospitalNotification of type [STIN] (with request for an admission note) is created and sent, then possibly a HospitalNotification of type [STOR] (without a request for an admission note) and finally a HospitalNotification of type [MORS] (without request for admission note) is created and sent. |  | Choose |

### Use case S.CANC: Cancellation/sending of AN\_XX without requesting an admission note XDIS16

Cancellations relate to cases where:

* A HospitalNotification is sent for the wrong patient
* A wrong type of HospitalNotification is sent

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom-assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Select a patient who is registered as, e.g. admitted (wrong patient). Cancel the registration, which is incorrect, and which has resulted in the sending of a HospitalNotification which is incorrect.  Demonstrate how it is handled in the user interface. |  | The registration is cancelled. |  | Choose |
|  | Demonstrate that a HospitalNotification of type AN\_XX has been created and sent to the recipient of the wrong HospitalNotification  XX= depends on the type of HospitalNotification that is cancelled e.g. [AN\_STIN]/ ”Annullering Start sygehusophold - indlagt”  Notice: MedCom can request a demonstration of the cancellation of any HospitalNotification | Insert file name | A HospitalNotification of type [XX] has been created and sent. Then a HospitalNotification of the type [AN\_XX] without a request for an admission note (XDIS16) is created.  The cancellation has been sent to the recipient of the original HospitalNotification. |  | Choose |
|  | Select a patient who is registered on e.g. leave (wrong status of hospital stay). Cancel the registration which is incorrect, and which has resulted in the sending of a “HospitalNotification”, which is incorrect.  Show how this is handled in the user interface. |  | The registration is cancelled. |  | Choose |
|  | Demonstrate that a HospitalNotification of type AN\_XX has been created and sent to the recipient of the wrong HospitalNotification  XX= depends on the type of HospitalNotification that is cancelled e.g. [AN\_STIN]/ ”Annullering Start sygehusophold - indlagt”  Notice: MedCom can request a demonstration of the cancellation of any HospitalNotification | Insert file name | A HospitalNotification of type [XX] has been created and sent, then a HospitalNotification of the type [AN\_XX] without a request for an admission note (XDIS16)  The cancellation has been sent to the recipient of the original HospitalNotification |  | Choose |

### Use case S.CORR: Correction/sending of RE\_XX without requesting admission note XDIS16

Corrections relate to cases where:

* A HospitalNotification with wrong time of admission is sent
* A HospitalNotification with wrong hospital department is sent

SUT may choose not to send corrections to [SLOR] and [MORS], i.e. [RE\_SLOR] and [RE\_MORS].

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom-assessment** |
| --- | --- | --- | --- | --- | --- |
|  | Select a patient who is registered as, e.g., admitted.  Adjust the time of the hospital stay.  Demonstrate how this is handled in the user interface. |  | The registration is corrected. |  | Choose |
|  | Demonstrate that a HospitalNotification of type [RE\_XX] is created and sent to the receiver of the original HospitalNotification.  XX=depends on the type of HospitalNotification that is cancelled e.g. [RE\_STIN]/ ”Rettelse Start sygehusophold – indlagt”.  Notice: MedCom can request a demonstration of the correction of any HospitalNotification. | Insert file name | A HospitalNotification of type [XX] has been created and sent, then a HospitalNotification of the type [RE\_XX] without a request for an admission note (XDIS16).  The correction has been sent to the recipient of the original HospitalNotification.  No HospitalNotification of type AN\_XX has been sent prior to RE\_XX. |  | Choose |
|  | Select a patient who is registered as e.g., admitted. Correct the department in which the patient is admitted.  Document how this is handled in user interface. |  | The registration is corrected. |  | Choose |
|  | Demonstrate that a HospitalNotification of type RE\_XX is created and sent to the recipient of the original HospitalNotification.  XX=depends on the type of HospitalNotification that is cancelled e.g. [RE\_STIN]/”Rettelse Start sygehusophold - indlagt”  Notice: MedCom can request a demonstration of the correction of any HospitalNotification. | Insert file name | A HospitalNotification of type [RE\_XX] is created and sent.  A HospitalNotification of type [XX] has been created and sent, then a HospitalNotification of the type [RE\_XX] without a request for an admission note (XDIS16)  The correction has been sent to the recipient of the original HospitalNotification.  No HospitalNotification of type AN\_XX has been sent prior to RE\_XX. |  | Choose |
|  | Select a patient who is registered as admitted.  Discharge the patient to home/primary sector.  Make a correction to the time of the admission.  Demonstrate that no correction has been sent to the admission notification [STIN] |  | A HospitalNotification of type [STIN] has been created and sent, then a HospitalNotification of the type [SLHJ]  No HospitalNotification of type [RE\_STIN] has been sent, as the correction has been executed after the discharge. |  | Choose |
|  | Select a patient who is registered as admitted.  Discharge the patient to home/primary sector.  Make a correction to the time of discharge.  Demonstrate that a correction has been sent to the discharge notification [SLHJ] |  | A HospitalNotification of type [STIN] has been created and sent, then a HospitalNotification of the type [SLHJ], and finally a HospitalNotification of type [RE\_SLHJ]. |  | Choose |

## Test of general requirements

The purpose of these test steps is to ensure that the technical sending of HospitalNotification is implemented with satisfactory quality, i.e. supports governance for message communication at a general level, as well as governance for HospitalNotification as described in 1.4 Background materials.

| **Test step #** | **Action** | **Test data/test person** | **Expected result** | **Actual result** | **MedCom-assessment** |
| --- | --- | --- | --- | --- | --- |
|  | **Identification of recipient**  Explain how the patient’s municipality of residence is identified in the production environment. |  | For example: Via lookup in the personal identification number database (DK: CPR-register) |  | Choose |
|  | **Timestamps**  Register a patient as admitted at 10:00 and show that Encounter.period.start specifies admission time (and not the time of data entry).  Note: The time is just a suggestion and may be different. | Insert file name | Encounter.period.start = 10:00. This is not linked to any other/a different time of data entry. |  | Choose |
|  | Select any patient who is registered as admitted. Now register the patient as on leave at 11:00 and show that Encounter.extension:leavePeriod.start specifies the time of leave start (and not the time of data entry).  Note: The time is just a suggestion and may be different. | Insert file name | Encounter.extension:leavePeriod.start = 11:00. This is not linked to any other/a different time of data entry. |  | Choose |
|  | Select any patient who is registered as on leave. Now register this patient as returned from leave at 17:00 and show that Encounter.extension:leavePeriod.end specifies the end time of the leave (and not the time of data entry).  Note: The time is just a suggestion and may be different. | Insert file name | Encounter.extension:leavePeriod.end = 17:00. This is not linked to any other/a different time of data entry. |  | Choose |
|  | Select any patient who is registered as admitted. Now register this patient as discharged at 15:00. Show that Encounter.period.end specifies the time of discharge (and not the time of data entry).  Note: The time is just a suggestion and may be different. | Insert file name | Encounter.period.end = 15:00. This is not linked to any other/a different time of data entry. |  | Choose |
|  | Select any patient who is registered as admitted. Now register this patient as dead at 18:00. Show that Encounter.period.end specifies the time of death (and not the time of data entry).  Note: The time is just a suggestion and may be different. | Insert file name | Encounter.period.end = 18:00. This is not linked to any other/a different time of data entry. |  | Choose |
|  | If pre-registration of admission, leave etc. is used, please explain, or demonstrate how it is ensured that the notification is only sent at the time when the incident occurs and not at the time of data entry. |  | In case of pre-registration, HospitalNotification is only sent when the action occurs. |  | Choose |
|  | **Correct message embedding in VANSEnvelope**  Choose any sent HospitalNotification and show that the HospitalNotification message is embedded correctly in a VANSEnvelopeand containspostfix with the HospitalNotification type in the name element. | Insert file name | The message contains a valid HospitalNotification and is correctly embedded in a VANSEnvelope.  VANSEnvelope contains:   * Format * Name (including postfix with HospitalNotification type) * Version |  | Choose |
|  | **Use of EpisodeOfCareIdentifier**  Select any patient who is registered as admitted, and where a HospitalNotification [STIN] has been sent.  Now send a care plan/DIS21 (Danish: Plejeforløbsplan) for the patient.  Show that the care plan contains an EpisodeOfCareIdentifier which is identical\* to the previously sent HospitalNotification.  \*Note that the EpisodeOfCareIdentifier in the care course plan will be without hyphens, while the EpisodeOfCareIdentifier in the HospitalNotification is hyphenated. | Insert file name | A HospitalNotification of type [STIN] has been created and sent. It contains one to several EpisodeOfCareIdentifiers. The EpisodeOfCareIdentifier is either a locally defined UUID for the specific contact and/or an LPR3 identifier.  A care plan has been created and sent. The two messages contain the same EpisodeOfCareIdentifier. |  | Choose |

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