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Transfer of Care Payloads

Document Management

Revision History

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| Version | Date | Summary of Changes |
| 0.5 | 16/08/2018 | As provided to GP IT Futures Team to meet 20/08/2018 deadline. |
| 0.6 | 17/09/2018 | Section 1 – changed reference to latest version (0.5) of *“Generic FHIR Receiver Interop Capability Specification”.*  Section 2 – renamed and reinserted MDS document to match that used in Continuity Period Request. Contents of file is unchanged.  Section 3 – added new numbered bullet point concerning display of encoded content in human readable object.  Section 4.2 – changed text to reflect fact that CAT is not clinically assured by NHS Digital. Also inserted alternative URL.  Appendix A updated to show a reduced number of FHIR Resources to implement. |
| 0.7 | 20/12/2018 | Section 1 – added Care Connect profile definitions URL.  Section 2 – removed embedded Minimum Data Set document and replaced with a URL from where it can be downloaded.  Section 3 – took out MVP characteristic “Human readable object created will be able to display, if present in FHIR message, SNOMED CT codes adjacent to associated narrative”, due to concerns about varying format of document view presented to GP Practice staff.  Section 3.2 – added URL defining definition of FHIR publication status levels.  Section 4.1 – added additional URL for test message bundles.  Section 4.2 – renamed “Clinical Assurance Tool” to “Document Viewer Tool”. Changed URL to access it. |

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# 1. Executive Summary

The scope of the Transfer of Care programme covers the following use cases or message types sent from a secondary care provider to a GP Practice:

* Inpatient and Day Case Discharge Summary.
* Adult Mental Health Inpatient and Day Case Discharge Summary.
* Emergency Care Discharge Summary.
* Outpatient Letter following a secondary care clinic service attendance.

New use cases, for example a routine Maternity Discharge Summary, may be defined at a future point for additional Transfers of Care activity. However, these further use cases would be a future rather than a current requirement.

Technical standards are based on HL7 FHIR (STU3). With FHIR it is possible to exchange units of health and social care information (FHIR resources) in a standardised and defined form either as individual units or bundled into documents. The Transfer of Care use cases should be regarded as documents. The FHIR resource names used in Transfer of Care are provided in Appendix A. Structure definitions for resources are detailed at: <https://fhir.nhs.uk/StructureDefinition> and for Care Connect profiles at https://fhir.hl7.org.uk/StructureDefinition

To receive and process Transfer of Care FHIR documents, GP IT suppliers are expected to provide their practice systems with a Generic FHIR Receiver (GFR) and Payload Processor (PP) capability. The GFR is a crucial common ask across several current NHS Digital programmes, including:

* Transfer of Care,
* GP Connect,
* Digital Medicines and Pharmacy.

This Minimum Viable Product document outlines the payload requirements that would go through the GFR/PP into first level GP workflow for Transfer of Care.

The *“Generic FHIR Receiver Interop Capability Specification”* (version 0.5) document, authored by Brian Diggle, should be read in conjunction with this document to gain a full understanding of the requirements.

# 2. Transfer of Care Use Cases

To further Paperless 2020, by 1 October 2018, all NHS Provider organisations will be expected to have aligned their acute inpatient discharge, mental health inpatient discharge, emergency care discharge, and outpatient letter communications with the requirements published in the latest NHS Standard Contract for the period 2017-2019. For clarity, Transfer of Care excludes routine maternity discharges, and paediatric mental health discharges.

When the GFR is delivered, secondary care providers shall be expected to send their discharge summaries and clinic letters electronically to General Practices in England both in and outside of their catchment area, using the HL7 FHIR STU3 based specifications published on developer net.

Although it is now recognised that a structured Transfer of Care FHIR message capability cannot be implemented by the original target date of 1st October 2018, the expectation is that GP IT suppliers will start as early as possible, after the commercial arrangements are in place, with the GFR capability build and engage quickly with First of Type (FoT) testing overseen by NHS Digital.

The final objective of secondary care sender sites is to populate all sections and elements defined in the Transfer of Care FHIR specifications. The advice being given to secondary care sites is to put the initial emphasis on populating:

* Coded Medications.
* Coded Allergies.
* Procedures, and
* Diagnoses (Conditions).

Pragmatically several factors, varying from secondary care site to secondary care site, will affect how well populated the messages end up. The minimum data set that GP IT suppliers can expect to receive from secondary care can be downloaded from:

<https://developer.nhs.uk/downloads-data/minimum-data-set-fhir-documents-itk-responses-transfer-care-toc/>

# 3. MVP Requirements for ToC Documents

For a GP Practice system, the Minimum Viable Product (MVP) for Transfer of Care has the following characteristics:

1. Sending and receival of asynchronous ITK3 messages/responses via MESH transport layer.
2. A means of handling a sent FHIR payload bundle within an ITK3 ‘envelope’ bundle to allow infrastructure and/or business level responses, either positive or negative, to be sent back to the document sender. The flow of responses can be found at: <https://developer.nhs.uk/apis/itk3messagedistribution/explore_response_patterns_1.html>
3. Once a document is accepted as valid at the GP Practice, an ability to transform it into a human readable object (e.g. HTML or PDF), create a corresponding workflow task and add the object to this task as an attachment.
4. If the structured payload contains an embedded object (e.g. PDF, MS Word, JPEGs, etc.) then this embedded object shall be associated with the human readable object created.

Responses back to the sender from the GP IT system can be Infrastructure or Business related. Infrastructure messages are concerned with discrepancies in the way the message is built. Business responses would be generated from comparing the message contents to that held by the Practice system, so a business response would indicate if:

* Patient known here (i.e. Patient is registered here).
* Patient not known here (aka ‘patient record not present in system’).
* Patient no longer at this clinical setting.

Any advanced processing or transformation of the received payload beyond that described in the MVP is outside of scope of this change but does not preclude GP IT suppliers from developing this as their own separate piece of work.

The *“Generic FHIR Receiver Interop Capability Specification”* document should be consulted to obtain an understanding of the common components making up the GFR.

## 3.1 Payload Message Definition

General guidance on the use of Message Definition resources to describe ITK3 messages can be found at:

<https://developer.nhs.uk/apis/itk3messagedistribution/explore_defs_overview.html>

It should be noted that for ITK3 Transfer of Care messages there are two Bundles, and the message definition, for the MessageDefinition resource, follows pattern 2 for the ITK *payload.*

The following Message Definitions, profiled to ITK-MessageDefinition-1, are relevant to ITK3 Transfer of Care payloads:

<https://fhir.nhs.uk/STU3/MessageDefinition/ITK-eDischarge-MessageDefinition-Instance-1>

<https://fhir.nhs.uk/STU3/MessageDefinition/ITK-MH-eDischarge-MessageDefinition-Instance-1>

<https://fhir.nhs.uk/STU3/MessageDefinition/ITK-EC-eDischarge-MessageDefinition-Instance-1>

<https://fhir.nhs.uk/STU3/MessageDefinition/ITK-OPL-MessageDefinition-Instance-1>

## 3.2 ITK3 Transfer of Care Payloads

The Transfer of Care specifications can be obtained from:

<https://developer.nhs.uk/transfer-care-specification-versions/>

The terminology defining the maturity of FHIR publications can be found at <https://nhsconnect.github.io/fhir-policy/publication.html#FHIR-PUB-04>

At the time of writing this document, the specifications are expected to shortly move from Beta to Release Candidate status. First of Type sites have already built and sent FHIR messages to a Test Harness. A level has now been reached where a Release Candidate can be implemented by a wider group.

The current specifications reflect the effort made to align with the latest:

* PRSB standards (<https://theprsb.org/standards/>) on sections and subsections (elements).
* Care Connect profiles produced by INTEROPen.

## 3.3 Interoperability Toolkit (ITK3)

The ITK3 specification for message distribution is on the developer network at <https://developer.nhs.uk/interoperability-tool-kit-itk-specification-versions/>

# 4. Development Support

## 4.1 Test Harness

GP IT supplier support in the form of a *Hospital synthetic client* for sending sample messages to a GP Practice system exist. This is in addition to the *GP Synthetic client* in use by secondary care implementers. Both modes of operation are provided in the tool known as the Test Harness.

Further information on the Test Harness can be found at:

<https://developer.nhs.uk/itk3-test-harness/>

Test messages and test scenarios can be accessed from:

<https://developer.nhs.uk/itk3-test-harness/itk3-test-harness-test-message-examples/> and

<https://github.com/nhsconnect/ITK-Test-Harness/tree/develop>

## 4.2 Document Viewer Tool

It is possible to check the contents of FHIR documents using a Clinical Review Tool developed by Aire Logic for NHS Digital. The link is: <https://data.developer.nhs.uk/document-viewer> . As the tool is not clinically assured by NHS Digital, it is offered to senders and receivers as something that may facilitate their due diligence activities prior to changing processes associated with transfers of care.

The Document Viewer is not expected to be utilised in the conformance certification approach defined by NHS Digital.

# 5. Contacts

GP IT suppliers requiring any further clarification on the contents of this document, may contact the following people:

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# Appendix A – FHIR Resources for Transfer of Care

