

D4.3 - (D4.2) XpanDH Feasibility Demonstrators

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What implications does it				
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	Healthcare Professional	X		
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from the document and why?	Public Authority or	X		
	Policymaker			
	Regulatory body			
	Standardization Body/ Open-	X		
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	Researcher/Academic			
	Statutory Health Insurance			
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	Technology & Service	X		
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List any relevant				
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List of abbreviations

Acronym	Description
•	Agency for Integration, Diffusion and Archive of Medical
AIDA	Information
CHUdSA	Centro Hospitalar Universitário de Santo António
D	Deliverable
KETEKNY/Greek	Center of Documentation and Costing of Hospital Services
DRG Institute	(Greek)
DRG	Diagnosis Related Groups
EC	European Commission
EEHRxF	European Electronic Health Record Exchange Format
EESZT	Hungary National eHealth infrastructure
EHDS	European Health Data Space
EHDSI	eHealth Digital Service Infrastructure
EHR	Electronic Health Record
EOPYY	National Organization for the Provision of Health Services
ESZKF	Hungary Health IT Service Provider and Development Center
EU	European Union
eGFR	estimated glomerular filtration rate
eHN	eHealth Network
FHIR	Fast Healthcare Interoperability Resources
FTGM	Fondazione toscana gabriele monasterio
FTSS	Fundacion TicSalut
GMPC ETIP	Greek Medical Procedures Classification
HbA1C	haemoglobin A1c
HDL	High-density lipoprotein
HIS	Hospital Information System
HL7	Health Level 7
HSE	Health Service Executive HSE
ICD-10	International Classification of Diseases - 10 th Revision
ICD-10-GrM	ICD-10-GrM ICD-International Classification of Diseases
ICD-IO-GIM	(Greek Modification)
IDIKA	Greek e-Government Center for Social Security Services
ISO	International Organization for Standardization
IT	Information Technology
LDL	Low-density lipoproteins
LIS	Laboratory Information System
LOINC	Logical Observation Identifiers Names and Codes
М	Month
NCPeH	National Contact Point for eHealth
NCZI	Slovakia National Center for Health Information
NeHA	Ethniki archi ilektronikis igeias
OKFO	National Directorate General for Hospitals
PCE	"Processo Clínico Eletrónico"



SNOMED-CT	Systemized Nomenclature of Medicine – Clinical Terms
SPMS	Portuguese Shared Services of the Ministry of Health
SRS	Secretaria Regional da Saude
TTSA	Telemedicine technologies
XML	Extensible Markup Language
WP	Work Package



Executive summary

This deliverable is a second version and focuses on the presentation and description of the XpanDH feasibility demonstrators responsible for experimentation around the European Electronic Health Records Exchange format (EEHRxF). Each demonstrator is associated with an X-Bubble whose use case is described in *D4.1 – (D4.1.1) XpanDH Adoption Domains (M6)*.

The strategy employed to advance the demonstrators is presented with the objective of outlining a common framework for the progression of the X-bubbles and expected outcomes. This strategy is based on the analysis of eHN guidelines as a basis of understanding, allowing verification of alignment levels and convergence needs.

The description of each demonstrator presents the AS-IS and TO-BE scenarios, including the associated actors and flows, the demonstrator's plan outlined to progress between scenarios, the work developed, the main results, and the main barriers and challenges encountered.

Moreover, a working progress format support maturity model provided by EC was applied to the 6 X-bubbles, allowing to verify at what stage each one is in the full adoption of EEHRxF.

The work presented in this document focuses only on the feasibility demonstrators associated with the X-Bubbles, being complemented by additional discussions with other bubbles and collaborations whose results are presented in D4.2 - (D4.1.2) Adoption opportunities, challenges and barriers (M21).



1 Introduction

This deliverable is focused on the presentation and description of the XpanDH feasibility demonstrators responsible for experimentation around the European Electronic Health Records Exchange format (EEHRxF) in XpanDH. The results of these demonstrators are presented within the scope of task 4.2. Furthermore, the "insilico" bubbles that resulted from collaborations throughout the project are also presented, with the results of these discussions being presented in D4.2 – (D4.1.2) Adoption opportunities, challenges and barriers (M21).

1.1 Background

The project XpanDH aims at mobilizing and building capacity in individuals and organisations to create, adapt and explore purposeful use of interoperable digital health solutions based on a shared adoption of the EEHRxF across Europe.

To achieve this objective, the project collaborates with a set of partners interested in working around the EEHRxF, the so-called "early adopters", which constitute the X-Bubbles. From a practical point of view, these organisations represent a sample of EU landscape, in what regards the needs of EEHRxF, based on their organisation and technical settings and aims.

For each X-Bubble, its motivation, the adoption domain considered, and a detailed description of the use case have been specified in *D4.1 – (D4.1.1) XpanDH Adoption Domains (M6)*.

In order to expand the work developed with X-Bubbles, a series of workshops were held with different entities discussing the results achieved and collecting new perspectives on the adoption of the EEHRxF. Furthermore, three online surveys related to the assessment of practice for production and exchange of health information in three specific priority categories (Patient Summary, Laboratory Report and Hospital Discharge Report) are make available and disseminated. This work is reported in D4.2 – (D4.1.2) Adoption opportunities, challenges and barriers (M21).

1.2 Scope and objectives

This document intends to:

- Present the strategy used to progress in the feasibility demonstrators.
- Present and specify the feasibility demonstrators for each X-Bubble.
- Present the results.
- Identify challenges and barriers.
- Apply a format support maturity model.





The XpanDH feasibility demonstrators have a strong relationship and collaboration with WP2 regarding specifications and WP3 regarding readiness assessment. The work carried out with WP2 relied on regular meetings with the X-Bubbles to create examples and address any doubts regarding the provided material available at: https://build.fhir.org/ig/hl7-eu/xpandh/. Regarding WP3, X-Bubbles reviewed the readiness model and held discussion meetings with the WP3 leaders, providing input for its improvement.

1.3 Structure of the deliverable

This deliverable is structured into the following parts:

- Strategy for feasibility demonstrators: Presentation of the strategy
 considered for conducting the feasibility demonstrators with the aim of
 assisting organizations in reaching the next level of adoption around the
 EEHRxF. Presentation of the Bubbles groups considered in XpanDH, taking
 into account the heterogeneity of the demonstrators and the desired level of
 alignment.
- XpanDH feasibility demonstrators: detailed description and specification of the feasibility demonstrators including scenarios, data flows, results, challenges and barriers.



2 Strategy for Feasibility Demonstrators

The XpanDH feasibility demonstrators aim to showcase the work developed around the EEHRxF, being organized into experimentation bubbles (X-Bubbles). The creation of these experimentation bubbles was described in D4.1 – (D4.1.1) XpanDH Adoption Domains (M6), taking into consideration the motivations of the partnering entities and their perspectives regarding the use of the EEHRxF. Additionally, the same deliverable delineates the corresponding use cases under consideration.

In accordance with the strategy outlined in the XpanDH project, the X-Bubbles (Figure 1) are constituted by organizations identified as "early adopters" that focus on priority adoption domains and guided by the available guidelines and specifications, present their feasibility demonstrators, with the following primary objectives:

- Demonstrate feasibility in real-world experimentations with a set of EEHRxF early adopters' organizations grouped under selected adoption domains.
- Prove that guidelines and specifications produced are useful, creating conditions for the purposeful use of the EEHRxF in concrete health and care domains.
- Understanding the landscape of EEHRxF adoption as a whole.

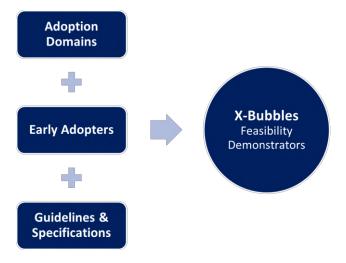


Figure 1 – X-Bubbles constitution.

2.1 High level strategy

The high-level strategy developed for the advancement of the X-Bubbles, aligned with the project objectives, is depicted in Figure 2. This strategy aims to guide organizations towards achieving the next readiness level in their experimentation around the EEHRxF. Additionally, the identification of adoption obstacles and opportunities is consistently integrated throughout the strategy.

The first step involves the selection of specific adoption domains where the demonstrators will focus in accordance with the project objectives. Subsequently,



considering the selected adoption domains, the scenarios of the feasibility demonstrators are specified, realizing the partners' visions regarding the utilization of the EEHRxF.

In order to advance in the presented scenarios and achieve a common understanding regarding the EEHRxF, the eHealth Network (eHN) guidelines serve as the foundation for specifications. In this context, the X-Bubbles review these guidelines and explore how they can adapt them to their own context. Subsequently, various interactions take place among the partners to extract requirements that feed into specifications, ultimately resulting in the final demonstrators. These demonstrators list and identify needs towards better guidelines and draft implementation acts.

Throughout all processes, challenges, barriers, and adoption opportunities are always considered, primarily with the partners of the X-Bubbles, but also extending beyond them.

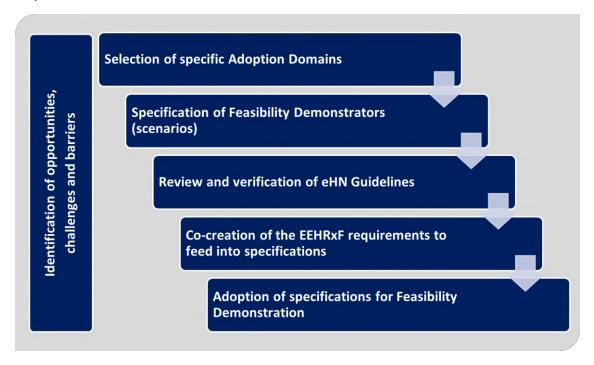


Figure 2 - X-Bubbles high level strategy.

2.2 Adoption Domains

The adoption domains selected by the project for deep analysis to determine their feasibility of experimentation were described in D1.5 – (D1.4) Definition of the EEHRxF adoption domains Report. These adoption domains derive from the EC priority categories shown in Figure 3. With the new EHDS resolution, these names have changed to: (a) patient summaries; (b) electronic prescriptions; (c) electronic dispensations; (d) medical imaging studies and related imaging reports; (e) medical test results, including laboratory and other diagnostic results and related reports; and (f) discharge reports.



Taking into account the analysis conducted and based on the priority categories at that time, the selected priority categories were the laboratory report and hospital discharge report, from which the adoption domains were derived and analyzed within the X-Bubbles. In addition to these categories, and during the project's progress, the patient summary was also considered as a relevant category for analysis.

The work developed in the feasibility demonstrators began with the adoption domains related to laboratory reports, hence the progress in this category is at a more mature level compared to the hospital discharge report. This is also due to the fact that the eHN guidelines for hospital discharge reports were only made available towards the end of the year 2023.

Regarding the patient summary, it is a more mature category where the aim is to analyze, along with associated partners of the project, its state of implementation and utilization in diverse contexts. The results of this analysis are documented in D4.2 - (D4.1.2) Adoption opportunities, challenges and barriers (M21).



Figure 3 - EC priority categories.

2.3 Bubbles

Taking into account the adoption domains selected for depth analysis in WP4 and the motivation of the involved partners, the bubbles depicted in Figure 4 were established. Considering the heterogeneity and levels of maturity among the partners comprising the bubbles, as well as the phase at which they joined the project and the work they undertake around the EEHRxF, the bubbles are divided into three main groups:

 X-Bubbles 1-6: X-Bubbles are constituted by groups of organizations, partners within XpanDH consortium, that voluntarily test the use of EEHRxF through the definition of concrete use cases for exchange and adoption scenarios. Their objective is to assess and validate the appropriateness of the



EEHRxF, identifying gaps and plan its adoption via feasibility demonstrators. These bubbles were created at the beginning of the project, focusing on two specific categories: laboratory reports and hospital discharge reports in different data exchange scenarios. The specification of these bubbles can be consulted in D4.1 – (D4.1.1) XpanDH Adoption Domains (M6). These bubbles are accountable for the feasibility demonstrators as they engage in a more in-depth analysis, which includes specifying concrete use cases and adoption scenarios.

- "In silico" bubbles: These bubbles are constituted by groups of organisations that are either associated partners to XpanDH or collaborate with the project in a more informal way. These bubbles do not delve as deeply as the X-Bubbles, but they are essential for extracting insights, barriers, and opportunities around the EEHRxF. Their objective is to identify requirements to the EEHRxF and its implementation via structured (workshops and surveys) exercises. All the work with the "in silico" bubbles is reported in D4.2 (D4.1.2) Adoption opportunities, challenges and barriers (M21).
- xShare Adoption Sites: These bubbles arise from the collaboration and synergy between the XpanDH and the xShare projects. The main input of these organisations was the response to the online surveys, whose results analyse is presented in D4.2 (D4.1.2) Adoption opportunities, challenges and barriers (M21).

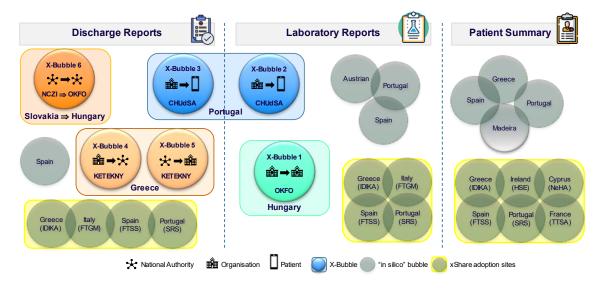


Figure 4 - XpanDH Bubbles.

It is important to note that the X-Bubbles are not intended to implement a EEHRxF compliant prototype but rather to assess the feasibility of its use and identify limitations and needs for improvement. In fact, and in direct relation to the character of XpanDH project (i.e. a CSA) any prototype implementation is out of scope. The aim is that, by the end of the project, partners of both types of bubbles are in a better position to move for a real implementation.



3 **XpanDH Feasibility Demonstrators**

In this chapter, the XpanDH feasibility demonstrators are presented, divided by X-Bubble. Within each feasibility demonstrator, the AS-IS and TO-BE scenarios are outlined, including the systems and actors involved, as well as the steps necessary to transition from one to the other. Additionally, the work developed is presented, including results, challenges and barriers encountered.

The XpanDH feasibility demonstrators worked around Article 6 of the EHDS resolution, namely on:

- harmonised datasets containing electronic health data and defining structures, such as data fields and data groups for the representation of clinical content and other parts of the electronic health data;
- coding systems and values to be used in datasets containing electronic health data;
- technical interoperability specifications for the exchange of electronic health data, including its content representation, standards and profiles.

3.1 X-Bubble 1

Partner leading the experiment: OKFŐ.

Adoption Domain: Laboratory results Organization to Organization.

X-Bubble 1 is focused on continuity of care for patients with diabetes, considering laboratory reports associated with this condition, within the context of health data exchange between organizations within the same country. Diabetic patients are followed-up in order to assure that the value of a group of laboratory parameters are maintained in a safe range. The list of laboratory results considered in this bubble is:

- Complete general blood count, with emphasis on fasting and postprandial (after meals) blood glucose levels, serum total cholesterol, HDL cholesterol, LDL cholesterol, triglycerides, creatinine, and estimated glomerular filtration rate (eGFR).
- Urine tests for glucose, acetone, and sediment.
- HbA1c measurement (most crucial for diabetes tracking).
- In cases where HbA1c measurement is not possible, fructosamine can be used as an alternative (although HbA1c is preferred and done every year or two).
- C-peptide measurement to determine the body's remaining insulin production.

The laboratory reports are securely stored within the Electronic Health Record System (EESZT), where they are accessible to all healthcare providers involved in the patient's care. This setup facilitates seamless information exchange and ensures that



pertinent medical information is readily available to facilitate informed decisionmaking and comprehensive patient management.

3.1.1 Scenarios and Data Flows

In the current situation (Figure 5) it is obligatory by law in Hungary for every state reimbursed healthcare provider and every private physician to use the EESZT to make patient data available to other healthcare providers treating the patient. Regarding laboratory reports, healthcare providers store these reports in their IT systems as provided by laboratory systems according to the standards used internally. The encoding of this data follows a Hungarian implementation of ICD10 and a partial Hungarian implementation of LOINC. Transmission to the EESZT, which functions as a national repository, until recently has been carried out only in unstructured PDF format, but structured laboratory reports has been introduced recently. The structured reports have a proprietary XML structure and allow the structured reporting of more than 400 laboratory measurements. The proprietary codes of these measurements have been mapped to LOINC.

Other healthcare providers can then access the legacy documents in PDF format and the structured documents in both structured and PDF formats. Patients through the patient portal can access the reports in PDF format.

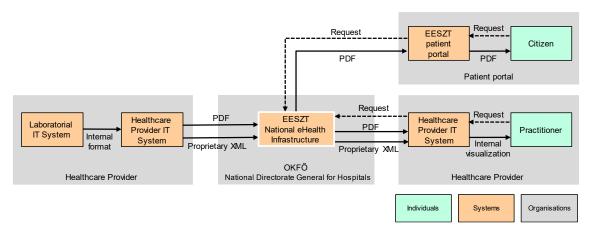


Figure 5 - X-Bubble 1: AS-IS scenario

With the work developed in this bubble, the aim is to support continuity of care for diabetic patients through structured data exchange. This will save considerable time for physicians by providing an integrated view of the patient's condition over time. Moreover, it will enable the provision of alerts based on the structured data, facilitating proactive management of the patient's health status. Additionally, the structured representation of laboratory reports is the first step towards cross-border exchange of such documents.

Two scenarios are envisaged in this context, one in the short term (Figure 6) and the other in the long term (Figure 7). Considering that the EESZT already has the capability to exchange structured data using a proprietary XML format, laboratory systems are already capable of sending structured reports for the selected



measurements, and most healthcare systems are capable to handle the structured documents in XML format, in the short term, this will be the data exchange format utilized between organizations. At the EESZT level, these structured data will be mapped according to the EEHRxF and made available to organizations adopting the format, including the EHDSI for cross-border exchange.



Figure 6 - X-Bubble 1: TO-BE scenario - short term.

In the long term, the goal is to progressively transition from the proprietary XML format to the EEHRxF, recognizing that during the transitional period, both formats may coexist simultaneously until all healthcare providers complete the full transition. Legacy documents remain in PDF format, and new documents will also need to have a PDF representation e.g. for the patient portal.



Figure 7 - X-Bubble 1: TO-BE scenario - long term.

3.1.2 Demonstrator plan

Table 1 - X-Bubble 1: demonstrator plan.

Step	Description	Status
1	Select adoption domain and specify the use case: available in D4.1 – (D4.1.1) XpanDH Adoption Domains (M6).	Done
2	Define the list of lab results: define the final list of lab results considered for diabetes patients.	Done
3	Analyse existing information systems	Done



4	Define information requirements: define the specific datasets and value sets ¹ required for diabetes laboratory reports.	Done
5	Adapt EESZT and the HIS/LIS to handle EEHRxF structured laboratory reports.	Not feasible during the project
6	Functional and technical tests: perform internal tests to ensure the feasibility of the solution.	Not feasible during the project
7	Perform pilot / roll out to production system.	Not feasible during the project
8	Document lessons learned	In progress

3.1.3 Work developed

Since M6 until M21, the following tasks have been completed:

- Consultation was held with ESZKF on the capabilities of the National E-Health Infrastructure (EESZT) and one of the most widely used hospital systems regarding laboratory reports. As a result, it was identified that the system has limited capabilities for handling structured laboratory reports, using a proprietary XML model rather than FHIR.
- An annotated laboratory report has been completed, identifying all the available fields. This information is accessible in the GitHub repository.
- The mapping table of coded laboratory parameters to LOINC has been analysed and a list of relevant codes has been collected (Annex I).
- A reviewing of the Laboratory Report eHN guideline was conducted, focusing on the identification of required and optional data fields, cardinalities, code systems, and any potential missing fields. <u>Annex II</u> present the result of this analysis.
- High-level testing of the laboratory report specification (https://build.fhir.org/ig/hl7-eu/laboratory) was conducted using FHIR-based laboratory report examples created from a representative PDF Hungarian report with the support of WP2. These examples are available in the <a href="https://github.ncbi.nlm.ncb

3.1.4 Results Discussion

X-Bubble 1 conducted an analysis of the feasibility of generating EEHRxF-compliant laboratory results based on the data available in the EESZT. The analysis identified the key laboratory parameters relevant for diabetes care for which structured reports are already available. This assessment highlights the potential to leverage

¹ A value set is a list of specific values, terms, and their codes, used to describe clinical and administrative concepts.





existing data in alignment with EEHRxF standards, although the integration is dependent on further developments in system interoperability.

Table 2 provides an overview of the eHN guidelines analysis performed in X-Bubble 1, including Table 2the total number of data fields in each data group, indicating the number of required, optional and not required (considered not needed for the use case) data fields and the data availability in the system, indicating structured, unstructured and unavailable number of data fields. In this X-Bubble 1, no missing data fields were identified. Regarding data importance 18/69 of the data fields are required, 42/69 are optional and 9/69 are not required. Regarding data availability 41/69 of the data fields are not available in X-Bubble 1 system. The reason for that numbers is related with national regulations and the fact that in X-Bubble 1 all the laboratory reports are stored in a central system. In that sense, some information is not available such as health insurance information and information recipient.

Table 2 - X-Bubble 1: eHN guidelines data groups analysis.

Data groups	Nº data fields	Data Importance	Data Availability
A.1 Report header data elements			
A.1.1 Identification of the patient/subject	5	4 required 1 optional	3 structured 1 unstructured 1 unavailable
A.1.2 Patient/subject related contact information	2	2 optional	2 unavailable
A.1.3 Health insurance and payment information	4	4 optional	4 unavailable
A.1.4 Information recipient	6	6 not required	6 unavailable
A.1.5 Author	3	1 required 2 optional	1 structured 2 unavailable
A.1.6 Legal authenticator	4	1 required 3 optional	2 structured 2 unavailable
A.1.7 Result validator	4	3 required 1 optional	2 structured 1 unstructured 1 unavailable
A.1.8 Laboratory report metadata	9	4 required 4 optional 1 not required	6 structured 1 unstructured 2 unavailable
A.2 Order information	6	6 optional	2 structured 1 unstructured 3 unavailable
A.3 Order reason	1	1 optional	1 structured
A.4 Specimen information	9	9 optional	1 structured 8 unavailable
A.5 Results data elements			
A.5.1 Laboratory report narrative	2	1 required 1 optional	1 unstructured 1 unavailable
A.5.2 Observation details	14	4 required 7 optional 3 not required	3 structured 2 unstructured 9 unavailable
Total	69	18 required 42 optional 9 not required	21 structured 7 unstructured 41 unavailable



3.1.5 Challenges and barriers

The main barrier to executing this demonstrator was the inability to engage any Hungarian healthcare providers willing to actively participate in the project. This limitation significantly hindered the practical implementation and testing of the EEHRxF framework in a real-world clinical setting. Furthermore, the widespread use of a proprietary XML format within the current infrastructure presents additional challenges for transitioning systems to EEHRxF.

3.2 X-Bubble 2

Partner leading the experiment: CHUdSA.

Adoption Domain: Laboratory results Organisation to Patient.

X-Bubble 2 is focused on continuity of care for patients with diabetes, considering laboratory reports associated with this condition, within the context where the hospital shares health data with the patient. Diabetic patients are followed-up in order to assure that the value of a group of laboratory parameters are maintained in a secure range. Laboratory results are made available to those patients that allowed this information to be consulted through the mobile app. The list of laboratory results considered in this bubble is:

- Hemoglobin A1C.
- Spot urinary albumin-to-creatinine ratio.
- Serum creatinine and estimated glomerular filtration rate.
- Lipid profile: including total, LDL, and HDL cholesterol and triglyceride.
- Liver function tests.

The laboratory reports are securely stored within the AIDA platform, where they are accessible to all healthcare professionals involved in the patient's care inside the hospital.

3.2.1 Scenarios

In the current situation (Figure 8) laboratory results are interoperated and archived by AIDA platform inside the healthcare provider. The laboratory IT systems upload the laboratory reports to the AIDA data lake using HL7 or FHIR communication. The encoding of this data follows a Portuguese implementation of LOINC and SNOMED-CT which can be consulted here. The communication between the AIDA data lake and its various modules is conducted in FHIR, with the AIDA-PCE module being responsible for generating information in PDF format. The provision of these reports to the patient is already allowed through the mobile app but only in unstructured PDF format. Additionally, patients can request a paper copy of the report from the patient office. Regarding healthcare professionals inside the organization, they already have access to all structured data provided by the AIDA data lake.



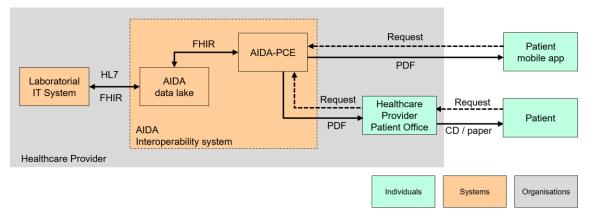


Figure 8 - X-Bubble 2: AS-IS scenario.

With the work developed in this bubble, the aim is to support laboratory reports consultation through the mobile app in structured format. This will ensure continuity of care and empower patients to manage their health data effectively.

The envisaged scenario in this context is depicted in Figure 9. A new AIDA-EEHRXF module will be added to map the information according to the EEHRXF and made available to patients through the mobile app. With this new module, the AIDA platform is equipped with the ability to share this type of structured information in the EEHRXF with other systems in the future.

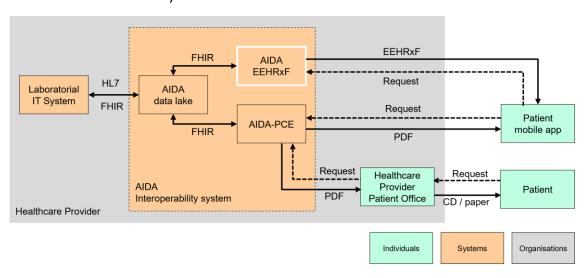


Figure 9 - X-Bubble 2: TO-BE scenario.

3.2.2 Demonstrator plan

Table 3 - X-Bubble 2: demonstrator plan.

Step	Description	Status
1	Select adoption domain and specify the use case: available in D4.1 – (D4.1.1) XpanDH Adoption Domains (M6).	Done
2	Define the list of lab results: define the final list of lab results considered for diabetes patients.	Done
3	Analyse existing national laboratory report structure.	Done



4	Define information requirements: define the specific datasets and code systems required for diabetes laboratory reports.	Done
5	Data transformation: developed the processes to mapping the laboratory results from their existing format to the EEHRxF (AIDA-EEHRxF).	In progress
6	Interoperability: configure the interoperability between AIDA platform and mobile APP; configure and adapt the mobile APP.	Not feasible during the project
7	Functional and technical tests: perform internal tests to ensure the feasibility of the solution.	Not feasible during the project
8	Document lessons learned.	In progress

3.2.3 Work developed

Since M6 until M21, the following tasks have been completed:

- Analysis of the national specifications provided by SPMS for structuring laboratory reports in FHIR. An example of one of these reports has been provided and is available on the <u>GitHub repository</u>.
- Reviewing the Laboratory Report eHN guideline. Identification of required and optional data fields, cardinalities, code systems and possible missing fields.
 Annex III presents the result of this analysis.
- Analysis of the laboratory report specification (https://build.fhir.org/ig/hl7-eu/laboratory), verifying that the FHIR versions used differ from those specified by SPMS, and some value sets are not recognized due to being national internal codes.
- Progress in the data transformation process, specifically in mapping the laboratory results from their existing format to the EEHRxF (AIDA-EEHRxF). This transformation ensures that laboratory results are converted into a structured format that complies with the EEHRxF, enabling their use in various digital health contexts.

3.2.4 Results Discussion

The results from the work developed in X-Bubble 2 demonstrated the feasibility of structuring laboratory results into EEHRxF. The main success was the identification and transformation of a specific dataset relevant to diabetes management, including Hemoglobin A1C, serum creatinine, and lipid profile data. Despite the progress, challenges arose due to discrepancies between the national implementation standards and EEHRxF specifications, namely regarding data formats, terminology and standardization procedures, leading to delays in the adaptation process.



The introduction of a new AIDA-EEHRxF module within the platform aimed to facilitate structured data exchange but was hindered by the following technical complexities:

- Inconsistent Data Standards: Different healthcare systems and laboratories may use varying formats for recording health data such as Hemoglobin A1C, creatinine, and lipid profiles. Aligning these formats with EEHRxF specifications requires significant effort in standardization and harmonization.
- Data Interoperability Issues: Ensuring that data can seamlessly flow between different systems (national and European) without loss of meaning or structure is a major technical challenge. This includes handling differences in terminologies, coding systems (e.g., ICD, SNOMED CT), and data models.
- Integration with Legacy Systems: Many national healthcare infrastructures rely on older, legacy systems that were not built with modern interoperability standards in mind. Integrating these with EEHRxF-compliant systems can require complex middleware solutions or even system overhauls.
- Data Security and Privacy: Ensuring that the transformed data complies with privacy regulations (such as GDPR) while maintaining security during exchange and storage is another significant technical challenge, especially in cross-border scenarios.

For a full implementation of AIDA-EEHRxF the following topics need to be addressed:

- Finalized National Specifications: National healthcare systems may not yet have fully defined or adopted the specifications needed to comply with EEHRxF standards. For example, terminologies, data models, and communication protocols might still be in development or require updates.
- Standardized Data Formats: To implement the EEHRxF, there needs to be agreement on a standardized data format across all systems. This format must be interoperable with both national and EU systems and should cover all types of health data relevant for diabetes management (and beyond).
- Governance and Compliance Frameworks: Without a clearly defined regulatory and governance framework, it is difficult to ensure compliance with EEHRxF, especially regarding data privacy and data-sharing protocols. The absence of these frameworks can lead to delays in adoption.
- Technical Infrastructure: Some national systems may lack the necessary technical infrastructure or integration tools to support EEHRxF-compliant exchanges, such as APIs or middleware for real-time data exchange.

The overview of the eHN guidelines analysis performed in X-bubble 2 is presented in Table 4, indicating the total number of data fields in each data group, indicating the number of required, optional and not required (considered not needed for the use case) data fields and the data availability in the system, indicating structured, unstructured and unavailable number of data fields. In this X-Bubble 2, no missing data fields were identified. Regarding data importance 29/69 of the data fields are



required, 32/69 are optional and 8/69 are not required. Regarding data availability 16/69 of the data fields are not available and 22/69 are stored in a structured way in X-Bubble 2 system. Some specific data fields are coded with internal and/or national codes such as the order and recipient identifiers by regulation purposes.

Table 4 - X-Bubble 2: eHN guidelines data groups analysis.

Data groups	Nº data fields	Data Importance	Data Availability
A.1 Report header data elements			
A.1.1 Identification of the patient/subject	5	4 required 1 optional	1 structured 3 unstructured 1 unavailable
A.1.2 Patient/subject related contact information	2	2 optional	2 unstructured
A.1.3 Health insurance and payment information	4	4 optional	4 unstructured
A.1.4 Information recipient	6	5 optional 1 not required	1 structured 4 unstructured 1 unavailable
A.1.5 Author	3	3 required	3 unstructured
A.1.6 Legal authenticator	4	4 not required	4 unavailable
A.1.7 Result validator	4	4 required	4 unstructured
A.1.8 Laboratory report metadata	9	6 required 3 optional	5 structured 2 unstructured 2 unavailable
A.2 Order information	6	4 required 2 optional	3 structured 3 unstructured
A.3 Order reason	1	1 optional	1 structured
A.4 Specimen information	9	4 required 5 optional	7 structured 2 unstructured
A.5 Results data elements			
A.5.1 Laboratory report narrative	2	2 optional	2 unstructured
A.5.2 Observation details	14	4 required 7 optional 3 not required	4 structured 2 unstructured 8 unavailable
Total	69	29 required 32 optional 8 not required	22 structured 31 unstructured 16 unavailable

3.2.5 Challenges and barriers

The heterogeneity and interoperability among systems are already taken into account and operationalized through the AIDA platform. However, the lack of final specifications makes the rapid implementation of the new AIDA-EEHRxF module challenging. Furthermore, the alignment between SPMS specifications and EEHRxF must also be considered and analysed, as the hospital must ensure compliance with national rules. Finally, the provision of data to the patient through the mobile app involves technical developments that are not feasible within the project timeline, and also includes approvement by the ethics department, which has its associated timeframe.



3.3 X-Bubble 3

Partner leading the experiment: CHUdSA.

Adoption Domain: Hospital Discharge Reports Organisation to Patient.

X-Bubble 3 is focused on continuity of care, considering the information available when a patient is discharged, within the context where the hospital shares health data with the patient. Whenever a patient is discharged, a report is completed by the medical and nursing professionals. Hospital Discharge Report summarizes clinical and administrative information on the patient condition at the moment of discharge. Also includes information about further procedures and medication. The hospital discharge report is made available to those patients that allowed this information to be consulted through the mobile app. The hospital discharge reports are securely stored within the AIDA platform, where they are accessible to all healthcare professionals involved in the patient's care inside the hospital.

3.3.1 Scenarios

In the current situation (Figure 10) hospital discharge information is interoperated and archived by AIDA platform inside the healthcare provider. Doctors and nurses have access to the patient's clinical episode and can add all necessary information, which is then stored in the AIDA data lake. The encoding of this data follows a Portuguese implementation of SNOMED-CT, ICD10 and LOINC which can be consulted here. The communication between the AIDA data lake and its various modules is conducted in FHIR, with the AIDA-PCE module being responsible for manage and export information in PDF format. The provision of these reports to the patient is only available upon request at the patient office and is provided in PDF/paper format. Regarding healthcare professionals inside the organization, they already have access to all structured data provided by the AIDA data lake.

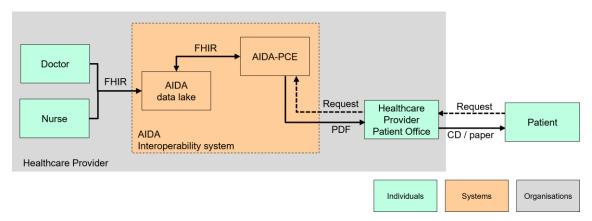


Figure 10 - X-Bubble 3: AS-IS scenario.

With the work developed in this bubble, the aim is to support hospital discharge reports consultation through the mobile app in structured and unstructured (PDF)



format. This will ensure continuity of care and empower patients to manage their health data effectively.

The envisaged scenario in this context is depicted in Figure 11. A new AIDA-EEHRxF module will be added to map the information according to the EEHRxF and made available to patients through the mobile app. With this new module, the AIDA platform is equipped with the ability to share this type of structured information in the EEHRxF with other systems in the future. Additionally, the same information is also provided in PDF format for easy reading and possible sharing with healthcare providers that are not yet prepared to receive data in the EEHRxF format.

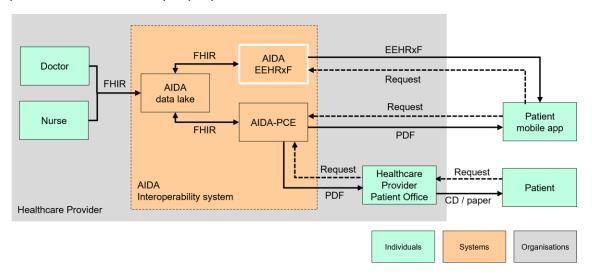


Figure 11 - X-Bubble 3: TO-BE scenario.

3.3.2 Demonstrator plan

Table 5 - X-Bubble 3: demonstrator plan.

Step	Description	Status
1	Select adoption domain and specify the use case: available in D4.1 – (D4.1.1) XpanDH Adoption Domains (M6).	Done
2	Analyse existing national hospital discharge report structure	Done
3	Define information requirements: define the specific datasets and code systems required for hospital discharge reports.	Done
4	Data transformation: developed the processes to mapping the hospital discharge reports from their existing format to the EEHRxF (AIDA-EEHRxF)	In progress
5	Interoperability: configure the interoperability between AIDA platform and mobile APP; configure and adapt the mobile APP.	Not feasible during the project
6	Functional and technical tests: perform internal tests to ensure the feasibility of the solution.	Not feasible during the project
7	Document lessons learned	In progress



3.3.3 Work developed

Since M6 until M21, the following tasks have been completed:

- Analysis of the national specifications provided by SPMS for structuring hospital discharge reports in FHIR.
- Reviewing the hospital discharge report eHN guideline. Identification of required and optional data fields, cardinalities, code systems and possible missing fields. <u>Annex IV</u> presents the result of this analysis. From this analysis, the need for one additional data field was identified.
- Progress in the data transformation process, specifically in mapping the hospital discharge reports from their existing format to the EEHRxF (AIDA-EEHRxF). The goal is to ensure that the hospital discharge reports adhere to the European standards for health data exchange. This task involves the analysis and adaptation of the current data structures, ensuring compliance with both national standards and the EEHRxF.

3.3.4 Results Discussion

In X-Bubble 3, the focus was on hospital discharge reports, specifically the structuring and sharing of these reports via a mobile application. While the AIDA platform provided a solid foundation for storing and managing structured data, the introduction of EEHRxF-compliant discharge reports required significant adjustments. The adjustments required to align the existing national discharge report structures with the EEHRxF format involved significant reworking of the underlying data models and exchange protocols. This process revealed several challenges, particularly concerning system interoperability between hospital information systems and external entities using the EEHRxF format. Key issues include:

- Discrepancies in Data Structures: The existing format of hospital discharge reports followed specific national standards, which did not directly align with the EEHRxF requirements, especially in how data fields were structured and coded.
- Interoperability Challenges: While mapping the existing data structure to EEHRxF was technically feasible, there were major difficulties in achieving seamless interoperability between different healthcare systems. These challenges stemmed from differences in national and European standards for health data exchange.
- Adjustments to Data Models: The AIDA platform required significant updates
 to its data models to support the more complex and detailed structure
 demanded by EEHRxF. This included updating the way patient discharge
 summaries, clinical details, and treatment plans were encoded to meet the
 new standard.



The results showed that while it was technically feasible to map the existing discharge report structure to EEHRxF, the lack of interoperability between systems presented a major challenge. The next steps involve enhancing the mobile app to support both structured and unstructured report formats and resolving national-specific integration issues.

The overview of the eHN guidelines analysis performed in X-bubble 3 is presented in Table 6, indicating the total number of data fields in each data group, indicating the number of required, optional and not required (considered not needed for the use case) data fields and the data availability in the system, indicating structured, unstructured and unavailable number of data fields.

Regarding data importance 102/249 of the data fields are required, 130/249 are optional and 14/249 are not required. Regarding data availability 22/249 of the data fields are not available and 80/249 are stored in a structured way in X-Bubble 3 system. Three specific data groups are not required: Information recipient, author and attester. In X-Bubble 3 only the legal authenticator is required and stored in the system concerning the person responsible for the hospital discharge report. In this X-Bubble 3, one missing data field was identified in discharge group: "Hospitalization outcome – Patient' discharge condition".

Table 6 - X-Bubble 3: eHN guidelines data groups analysis.

Data groups	Nº data fields	Data Importance	Data Availability
A.1 Report header data elements			
A.1.1 Identification of the patient/subject	7	4 required 3 optional	1 structured 5 unstructured 1 unavailable
A.1.2 Patient/subject related contact information	15	4 required 11 optional	8 structured 4 unstructured 3 unavailable
A.1.3 Health insurance and payment information	3	3 optional	3 unstructured
A.1.4 Information recipient	7	7 not required	7 unavailable
A.1.5 Author	5	5 not required	5 unavailable
A.1.6 Attester	5	5 not required	5 unavailable
A.1.7 Legal authenticator	5	5 required	5 unstructured
A.1.8 Document metadata	9	9 required	3 structured 6 unstructured
A.2 Report body data elements			
A.2.O Narrative form	1	1 required	1 unstructured
A.2.1 Advance directives			
A.2.1.1 Living will	5	5 optional	2 structured 3 unstructured
A.2.2 Alerts			
A.2.2.1 Allergy and Intolerance	10	4 required 6 optional	6 structured 4 unstructured
A.2.2.2 Medical alerts	1	1 required	1 structured
A.2.3 Encounter	2	2 required	2 unstructured
A.2.3.3 Admission	11	11 required	2 structured 9 unstructured



A.2.3.4 Admission reason	3	2 required 1 optional	2 structured 1 unstructured
A.2.3.5 Discharge	3	3 required	1 structured 2 unstructured
A.2.3.6 Location	4	4 required	1 structured 3 unstructured
A.2.4 Admission evaluation			
A.2.4.1 Objective findings	7	1 required 6 optional	3 structured 4 unstructured
A.2.4.2 Functional status	5	5 optional	5 unstructured
A.2.6 Patient history			
A.2.6.1 Medical history	35	35 optional	24 structured 11 unstructured
A.2.6.2 Family history	5	5 optional	3 structured 2 unstructured
A.2.6.3 Social determinants of health	15	15 optional	6 structured 8 unstructured 1 unavailable
A.2.6.4 Use of substances	11	11 optional	3 structured 8 unstructured
A.2.7 Course of hospitalisation			
A.2.7.1 Diagnostic summary	10	5 required 5 optional	3 structured 7 unstructured
A.2.7.2 Significant procedures	8	6 required 2 optional	4 structured 4 unstructured
A.2.7.3 Medical devices and implants	5	4 required 1 optional	2 structured 3 unstructured
A.2.7.5 Pharmacotherapy	10	10 required	1 structured 9 unstructured
A.2.7.6 Significant observation results	6	5 required 1 optional	2 structured 4 unstructured
A.2.7.7 Synthesis	2	2 required	2 unstructured
A.2.8 Discharge details			
A.2.8.1 Objective findings	8	5 required 3 optional	1 structured 7 unstructured
A.2.8.2 Functional status	5	1 required 4 optional	5 unstructured
A.2.8.3 Discharge note A.2.9 Care plan and other recommendations after discharge	1	1 optional	1 unstructured
A.2.9.1 Care plan	8	1 required 7 optional	1 structured 7 unstructured
A.2.9.2 Medication summary	11	11 required	11 unstructured
A.2.9.3 Other recommendations	1	1 required	1 unstructured
Total	249	102 required 130 optional 17 not required	80 structured 147 unstructured 22 unavailable

3.3.5 Challenges and barriers

Given that it is the same organization, and the same interoperability system is being used, the challenges are the same as those described in 3.2.5 of X-Bubble 2.



3.4 X-Bubble 4 and 5

Partner leading the experiment: KETEKNY - Greek DRG Institute.

Adoption Domain: Hospital Discharge Report Organisations to National Authority to Organisations.

X-Bubble 4 focuses on gathering clinical and administrative information into a single document that summarizes all discharge information for a patient and sending it to the national authority as a hospital discharge report. On the other hand, Bubble 5 complements Bubble 4 by forwarding the hospital discharge report between the national authority and the organization, adding additional information generated by the DRG system. In this scenario, it makes sense to keep these two bubbles together in the same demonstrator. The main objective, in terms of health data information exchange, is to pilot the use of hospital discharge report including DRG data:

- to contribute to the collection of structured and coded information on patient administrative data (as defined in the Greek DRG-Dataset),
- to contribute to the collection of relevant clinical data, using ICD-10 Greek Modification, and GMPC/ETIP (as foreseen in Greek DRG Coding Guidelines),
- to achieve fair Remuneration for given Hospital Services by EOPYY and other insurance organizations,
- to contribute to the validation and cross-check of structured and coded information on patient administrative and clinical data (as defined in the Greek DRG-Dataset),
- to transmit DRG codes and names for each patient, computed by the algorithm of the Greek DRG Grouper Platform, according to the above validated and cross-checked patient data.

3.4.1 Scenarios

Prior to the introduction of the new Greek DRG system, data in relation with Hospital EHRs, were collected via various methods (majority not in a coded or standard structured manner). Currently, under the new Greek DRG Grouper Platform, operated by KETEKNY, data are transmitted to hospitals using proprietary XML/JSON files and are not directly interconnected with the official discharge forms (Figure 12). Hospitals provide patients with two other official discharge forms: the Administrative Discharge Report and the Medical Discharge Reports/Letters.



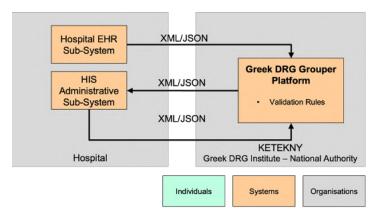


Figure 12 - X-Bubble 4 and 5: AS-IS scenario.

With the work developed in these bubbles, the ultimate aim was the formulation and adaptation of a unique collection of patient hospitalization data after their discharge, which will be registered, saved, exchanged and delivered for any appropriate use within the Health Care System (including communication of Hospital EHRs with the Greek DRG Grouper Platform, operated by KETEKNY) in a coded, structured and standardised manner, thus ultimately ensuring continuity of care through continuous availability of patient hospitalization information.

The envisaged scenario in this context is depicted in Figure 13. The Greek DRG Grouper Platform, by utilizing the EEHRxF Interoperability Engine, will have the capability to receive and send hospital discharge reports containing all the relevant information for the DRG system using the EEHRxF. Hospital EHR systems will also need to adapt to create a unified document with all the information and structure it according to the EEHRxF (possibly i.e. Hospital EHR systems will be enhanced with additional modules to interface seamlessly with the EEHRxF, ensuring that existing workflows are augmented rather than replaced, to create a unified document that aligns with the required information structure). The Greek DRG Platform is supposed to function as a national repository, allowing it to provide discharge data in the case of care transition (such as patient transfer) to ensure continuity of care.

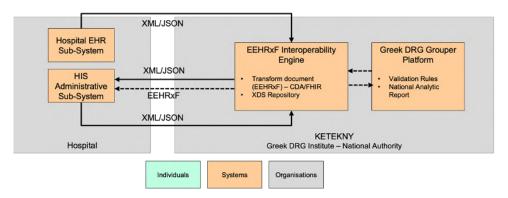


Figure 13 - X-Bubble 4 and 5: TO-BE scenario.



3.4.2 Demonstrator plan

Table 7 - X-Bubble 4&5: demonstrator plan.

Step	Description	Status
1	Select adoption domain and specify the use case: available in D4.1 – (D4.1.1) XpanDH Adoption Domains (M6).	Done
2	Analyse existing national hospital discharge report structure and validation rules.	Done
3	Define information requirements: define the specific datasets and value sets required for hospital discharge reports satisfying the DRG.	Done
4	Perform a mapping exercise on existing format vs desired EEHRxF data fields of discharge report from two HIS vendors.	Done
5	Conduct experimentation, depending on the availability of final relevant technical specifications (otherwise not feasible during the project)	To Do
6	Document lessons learned.	In progress

3.4.3 Work developed

Since M6 until M21, the following tasks have been completed:

- Involvement of healthcare providers that are onboard to participate in the demonstrator.
- Analyse the existing national hospital discharge report structure and validation rules, providing a list of important datasets for DRG operation.
- Reviewing the hospital discharge report eHN guideline. Identification of required and optional data fields and possible missing fields. Two HIS vendors got on board to participate as early adopters, by providing feedback about the data availability in their systems regarding the identified required data fields. In annex V, the status of this analysis is presented. From this analysis, the need for 2 additional data fields was identified for this use case, and some necessary value sets were indicated in the Greek context.

3.4.4 Results Discussion

Although no massive or even pilot of real data exchange has been performed until now (due to challenges concerning final specifications, regulatory issues, etc.), several benefits were obtained by work done in the field of X-Bubbles 4 and 5, as for achieving the goal of feasibility.

One of our primary lessons learned was the need for a detailed appropriate standardization and homogeneity of HDR format and structure, in order to reach a significantly high level of interoperability in healthcare data transfer in the domain of HDR.



The results achieved contained the conduction of a detailed analysis and mapping of existing HDR structures, as well as a thorough review of the hospital discharge report eHN guidelines (overview presented in Table 8). Furthermore, identification of all required and optional data fields and of relevant coding systems was performed, and a proposal was formulated for additional fields to be implemented, due to the special needs within the Greek context (DRG-relevant fields).

In particular, a sample of two HIS vendors were onboarded to participate as early adopters in this project. Their role was to provide feedback relevant to the eHN guidelines data groups analysis, as per XpanDH project's implementation. The vendors initially examined 161 parameters deemed "required" for achieving interoperability within healthcare systems. These parameters were assessed based on their usage, availability, and alignment with relevant coding systems. While a significant portion of the 161 parameters has already been implemented, either fully or partially, they were mostly available in a descriptive and, in many cases, inadequately encoded according to international standards.

Out of the 161 parameters analysed by the two HIS vendors, 75 parameters have been fully realized in both systems, and an additional 58 have been partially implemented, demonstrating a positive trend towards compliance. However, the fact that 28 parameters remain unimplemented indicates that further efforts are needed to ensure full compliance and facilitate seamless data exchange.

As a result from this analysis, in this X-Bubbles 4 and 5, two missing data fields were identified in admission group: "Admitting weight - Weight on admission (to be completed for patients age less than 1 year)"; and discharge group: "Hospitalization outcome - Patient' discharge condition". Regarding the required value sets in the context of X-Bubbles 4 and 5 concrete lists were defined for some data fields, such as Admission urgency, Admit source, Discharge destination type and Hospitalization outcome.

Finally, it should be mentioned that input from other HIS vendors is essential for a more comprehensive approach to be obtained in the future, especially when specifications are finalized (beyond project).

As for our recommendations, we concluded that, in order to generate a unified document, which will be properly structured and adequately completed, incorporating all necessary information, according to the EEHRxF we should insist on implementing:

- a detailed appropriate standardization and homogeneity of HDR format and structure, and
- a proper adaptation of existing Hospital EHR systems.



Table 8 - X-Bubble 4&5: eHN guidelines data groups analysis.

	_		
Data groups	Nº data fields	Data Importance	Data Availability
A.1 Report header data elements			
A.1.1 Identification of the patient/subject	7	7 required	5 structured 2 unstructured
A.1.2 Patient/subject related contact information	15	6 required 9 optional	3 structured 3 unstructured 9 n/a
A.1.3 Health insurance and payment information	3	3 required	2 structured 1 unstructured
A.1.4 Information recipient	7	7 optional	7 n/a
A.1.5 Author	5	5 required	3 structured 2 unstructured
A.1.6 Attester	5	5 optional	5 n/a
A.1.7 Legal authenticator	5	5 optional	5 n/a
A.1.8 Document metadata	9	8 required 1 optional	6 structured 2 unstructured 1 n/a
A.2 Report body data elements			
A.2.0 Narrative form	1	1 required	1 unstructured
A.2.1 Advance directives			
A.2.1.1 Living will	5	5 optional	1 structured 4 n/a
A.2.2 Alerts			
A.2.2.1 Allergy and Intolerance	10	5 required 5 optional	3 unstructured 2 unavailable 5 n/a
A.2.2.2 Medical alerts	1	1 required	1 unstructured
A.2.3 Encounter	2	2 required	1 structured 1 unstructured
A.2.3.3 Admission	11	11 required	4 structured 7 unstructured
A.2.3.4 Admission reason	3	2 required 1 optional	1 structured 1 unstructured 1 n/a
A.2.3.5 Discharge	3	3 required	2 structured 1 unstructured
A.2.3.6 Location	4	4 required	4 unstructured
A.2.4 Admission evaluation			
A.2.4.1 Objective findings	7	7 required	1 structured 6 unstructured
A.2.4.2 Functional status	5	2 required 3 optional	1 structured 1 unstructured 3 n/a
A.2.6 Patient history			
A.2.6.1 Medical history	35	26 required 9 optional	10 structured 7 structured 9 unavailable 9 n/a
A.2.6.2 Family history	5	3 required 2 optional	2 structured 1 unstructured 2 n/a
A.2.6.3 Social determinants of health	15	15 optional	15 n/a
A.2.6.4 Use of substances	11	8 required 3 optional	5 unstructured 3 unavailable 3 n/a



A.2.7 Course of hospitalisation			
A.2.7.1 Diagnostic summary	10	7 required 3 optional	2 structured 5 unstructured 3 n/a
A.2.7.2 Significant procedures	8	6 required 2 optional	4 structured 2 unstructured 2 n/a
A.2.7.3 Medical devices and implants	5	4 required 1 optional	3 structured 1 unavailable 1 n/a
A.2.7.5 Pharmacotherapy	10	9 required 1 optional	6 structured 3 unstructured 1 n/a
A.2.7.6 Significant observation results	6	4 required 2 optional	1 structured 3 unstructured 2 n/a
A.2.7.7 Synthesis	2	2 required	1 unstructured 1 unavailable
A.2.8 Discharge details			
A.2.8.1 Objective findings	8	5 required 3 optional	1 unstructured 4 unavailable 3 n/a
A.2.8.2 Functional status	5	4 required 1 optional	4 unavailable 1 n/a
A.2.8.3 Discharge note	1	1 required	1 unstructured
A.2.9 Care plan and other recommendations after discharge			
A.2.9.1 Care plan	8	4 required 4 optional	1 structured 3 unavailable 4 n/a
A.2.9.2 Medication summary	11	9 required 2 optional	2 structured 6 unstructured 1 unavailable 2 n/a
A.2.9.3 Other recommendations	1	1 required	1 unstructured
Total	249	166 required 83 optional O not required	61 structured 72 unstructured 28 unavailable 88 n/a

3.4.5 Challenges and barriers

For the implementation of a demonstrator, the availability of final technical specifications is necessary, otherwise this could pose a significant barrier to the experimentation part from KETEKNY, in collaboration with GNOMON. Legal and regulatory issues, relevant mainly to exchange of data and interoperability process, to be addressed is often quite challenging.



3.5 X-Bubble 6

Partner leading the experiment: NCZI

Adoption Domain: Hospital Discharge Report National authority to National authority.

X-Bubble 6 is focused on transmitting relevant data from the hospital discharge report from Slovakia (stored in the Slovak national health information system) to other country displaying them in the destination doctor's information system. For the feasibility scenario the destination country is Hungary. By piloting this X-Bubble, the intention is to showcase the benefits of standardized and interoperable exchange of hospital discharge reports. The successful implementation of this scenario will not only contribute to improved cross-border healthcare collaborations but also support the overall objectives of the XpanDH project.

It is important to note that the existing legislation and technical infrastructure do not currently support such cross-border exchanges. The output of this X-Bubble will not involve the full implementation or deployment of the entire process described in the scenario. Instead, the focus will be on conducting a feasibility check of the technical and semantic transformation of the original hospital discharge report (Slovakia side) and exploitation of the potential solutions and challenges associated with cross-border document exchange of this kind.

3.5.1 Scenarios

In the current situation (Figure 14) cross-border exchange between Slovakia and Hungary is not possible. Internally in Slovakia, the ISO 13606 standard is used for hospital discharge report exchange, while in Hungary, this data is exchanged in an unstructured format (PDF).

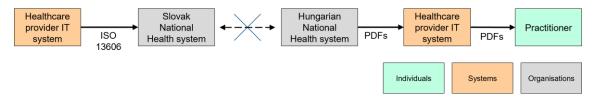


Figure 14 - X-Bubble 6: AS-IS scenario.

With the work developed in this bubble, the Slovak National Health Information Centre (NCZI) and the Hungarian Digital Health Authority (OKFÖ) explore the possibility of implementing a cross-border document exchange. Rather than upgrading their national information systems (in the actual phase), they consider the concept of National Contact Points for eHealth (NCPeH) for the exchange. The NCPeH serves as the platform for exchanging hospital discharge reports, allowing the national health information systems to continue using their current standards.



Two scenarios are envisaged in this context, one in the short term (Figure 15) and the other in the long term (Figure 16). Considering Slovakia's capability to exchange structured data using ISO 13606 and Hungary's using proprietary XML, in the short term, these standards will continue to be used internally in both countries. The NCPeH will be responsible for mapping the hospital discharge report to the EEHRxF.

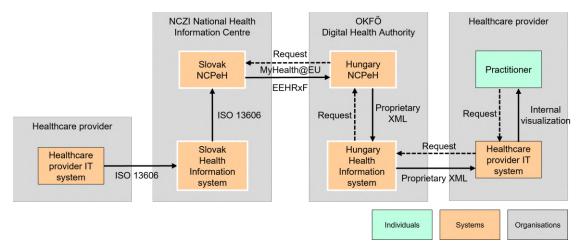


Figure 15 - X-Bubble 6: TO-BE scenario - short term.

In the long term, the goal is to progressively transition from the ISO 13606 and proprietary XML format to the EEHRxF, and also to use it internally in countries. It is recognized that during the transitional period, both formats may coexist simultaneously until all healthcare providers complete the full transition.

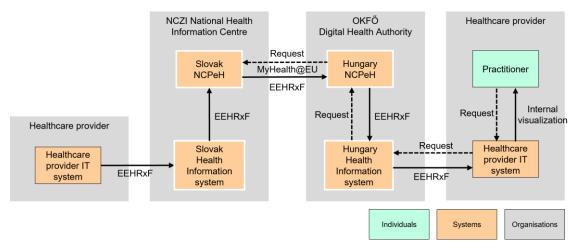


Figure 16 - X-Bubble 6: TO-BE scenario - long term.

3.5.2 Demonstrator plan

Table 9 - X-Bubble 6: demonstrator plan.

Step	Description	Status
1	Select adoption domain and specify the use case: available in D4.1 – (D4.1.1) XpanDH Adoption Domains (M6).	Done
2	Define information requirements: define the specific datasets and value sets required for hospital discharge reports.	Done



3	Data transformation and formatting: developed the processes to mapping the hospital discharge reports from their existing format to the EEHRxF.	Not feasible during the project
4	Implement the NCPeHs as a secure and data exchange mechanism.	Not feasible during the project
5	Functional and technical tests: perform internal tests to ensure the feasibility of the solution.	Not feasible during the project
6	Evaluate Feasibility and Effectiveness	Not feasible during the project
7	Document lessons learned	In progress

3.5.3 Work developed

Since M6 until M21, the following tasks have been completed:

- Reviewing the hospital discharge report eHN guideline. Identification of required and optional data fields, cardinalities, code systems and possible missing fields. In <u>annex VI</u>, the status of this analysis from Slovakia side is presented. From this analysis, the need for 2 additional data fields was identified for this use case.
- Providing concrete examples for all relevant fields.

3.5.4 Results Discussion

NCZI has already initiated a project to implement NCPeH in Slovakia. This project, planned from October 2023 to September 2026, focuses on implementing cross-border exchange services for Patient Summaries and ePrescription/eDispensation, but not yet for Hospital Discharge Reports. The cross-border service for Hospital Discharge Reports will be the subject of a future project to meet EHDS requirements.

The outcomes of the XpanDH project will support Slovakia in implementing changes to the current national Hospital Discharge Report solution, ensuring that interim changes align with EHDS requirements and comply with the EEHRxF framework until the long-term implementation is completed.

The overview of the eHN guidelines analysis performed in X-bubbles 6 is presented in Table 10, indicating the total number of data fields in each data group, the number of required, optional and not required (considered not needed for the use case) data fields and the data availability in the actual system, indicating structured, unstructured and unavailable number of data fields.

Regarding data importance 29/249 of the data fields are required, 44/249 are optional and 176/249 are not required. Regarding data availability 156/249 of the data fields are not available and 44/249 are stored in a structured way in Slovakia system.



A large number of data fields are not available in current system, and a large number of them are also considered not necessary in this context. In this X-Bubbles 6, two missing data fields were identified in preferred health professional group: "ID organisation - code of HP organization"; "ID department - code of department in the HP organization".

Table 10 - X-Bubble 6: eHN guidelines data groups analysis.

Data groups	Nº data fields	Data Importance	Data Availability
A.1 Report header data elements			
A.1.1 Identification of the patient/subject	7	2 required 5 optional	3 structured 4 unavailable
A.1.2 Patient/subject related contact information	15	4 required 11 optional	5 structured 8 unstructured 2 unavailable
A.1.3 Health insurance and payment information	3	3 required	3 structured
A.1.4 Information recipient	7	7 not required	7 unavailable
A.1.5 Author	5	5 required	3 structured 2 unstructured
A.1.6 Attester	5	5 not required	5 unavailable
A.1.7 Legal authenticator	5	5 not required	5 unavailable
A.1.8 Document metadata	9	9 not required	8 structured 1 unavailable
A.2 Report body data elements			_
A.2.0 Narrative form	1	1 required	1 unstructured
A.2.1 Advance directives	_	E	F "I. I. I.
A.2.1.1 Living will A.2.2 Alerts	5	5 not required	5 unavailable
A.2.2.1 Allergy and Intolerance	10	5 optional 5 not required	1 structured 3 unstructured 6 unavailable
A.2.2.2 Medical alerts	1	1 optional	1 unstructured
A.2.3 Encounter	2	2 not required	1 unstructured 1 unavailable
A.2.3.3 Admission	11	7 required 4 not required	5 structured 6 unstructured
A.2.3.4 Admission reason	3	3 required	1 structured 1 unstructured 1 unavailable
A.2.3.5 Discharge	3	1 required 2 not required	1 structured 1 unavailable
A.2.3.6 Location	4	4 not required	4 unavailable
A.2.4 Admission evaluation			
A.2.4.1 Objective findings	7	2 required 5 not required	1 structured 4 unstructured 2 unavailable
A.2.4.2 Functional status	5	5 not required	5 unavailable
A.2.6 Patient history			
A.2.6.1 Medical history	35	7 optional 28 not required	5 structured 2 unstructured 28 unavailable
A.2.6.2 Family history	5	5 not required	5 unavailable
A.2.6.3 Social determinants of health	15	15 not required	1 structured 14 unavailable



A.2.6.4 Use of substances	11	11 not required	11 unavailable
A.2.7 Course of hospitalisation			
A.2.7.1 Diagnostic summary	10	1 required 9 not required	4 structured 5 unstructured 1 unavailable
A.2.7.2 Significant procedures	8	8 not required	8 unavailable
A.2.7.3 Medical devices and implants	5	5 not required	3 structured 1 unstructured 1 unavailable
A.2.7.5 Pharmacotherapy	10	10 not required	10 unstructured
A.2.7.6 Significant observation results	6	6 not required	6 unavailable
A.2.7.7 Synthesis	2	2 not required	2 unavailable
A.2.8 Discharge details			
A.2.8.1 Objective findings	8	2 optional6 not required	8 unavailable
A.2.8.2 Functional status	5	1 optional 4 not required	5 unavailable
A.2.8.3 Discharge note	1	1 optional	1 unstructured
A.2.9 Care plan and other recommendations after discharge			
A.2.9.1 Care plan	8	1 optional 7 not required	3 unstructured 5 unavailable
A.2.9.2 Medication summary	11	10 optional 1 not required	11 unavailable
A.2.9.3 Other recommendations	1	1 optional	1 unavailable
Total	249	29 required 44 optional	44 structured 49 unstructured 156 unavailable
		176 not required	100 uriavaliable

3.5.5 Challenges and barriers

Technical infrastructure challenges

Although NCZI is committed to aligning the Hospital Discharge Reports with EHDS requirements, lack of technical infrastructure in both countries currently limits the full implementation of the cross-border exchange. NCZI's existing infrastructure, based on ISO 13606 must align with the EEHRxF and the challenge lies in building the necessary translation/transformation mechanisms.

Regulatory barriers

There are legal and policy challenges in implementing cross-border document exchange, as current Slovak legislation doesn't allow this kind of services.



3.6 Format support maturity model

Table 11 presents the format support maturity model provided by EC as ongoing work. Given the lack of final specifications for the EEHRxF, to apply this model we need to make some assumptions:

- Data structurisation:
 - We consider aligned with the format the structured provided by the eHN guidelines.
 - We consider "must support" fields that one's indicated as "Required" by X-Bubble.
- Data coding/values:
 - We considered "format-compliant" the preferred code system of the eHN guidelines.

Table 11 – Format Support Maturity model

	Semantic		Technical domain			
	Data structurisation	l	Data coding/values	Technical interface (API)		
sE	Non-structured data only (original clinical documents)	cE	No coding of data	tD	No API available	
sD	Data structures not aligned with the format but can be partially converted into it	cD	Proprietary or other non-compliant coding of data that can be partially converted into format-compliant	tC	An API is available, but not compatible with format-supported technology	
sC	Supports all "must support" fields	cC	Proprietary or other non-compliant coding of data that can be fully converted into format-compliant	tB	Broadly format- compliant API with limitations that affect the access to or acceptance of data	
s B	Supports more than 80% of fields	сВ	Supports all mandatory coding requirements	t A	Fully format-compliant API	
s A	Full conformity	cA	Full conformity with all mandatory and recommended code systems and value sets			

Table 12 presents the application of the format support maturity model to the X-Bubbles. Regarding data structurisation, all X-Bubbles have their internal structures for health data exchange, which largely allow the conversion to the format. Specifically, X-Bubbles 2 and 3 already widely use FHIR for national reasons, which allows them to be more aligned. In relation to data coding/values, all X-Bubbles have the same maturity level, due to the need to use some national codes regarding order systems, DRG systems, among others. Finally, in the technical domain, all X-Bubbles



allow the exchange of health data through APIs, with the exception of bubble 6 where NCPeH are not yet implemented.

Table 12 – X-Bubbles Format Support Maturity model

X-Bubble	s	С	t
1	D	D	С
2	С	D	С
3	С	D	С
4&5	D	D	С
6	D	D	D



4 Final remarks

In this document it is possible to identify and understand the XpanDH feasibility demonstrators responsible for experimentation around the EEHRxF. The strategy employed to advance the demonstrators is presented with the objective of outlining a common framework for the progression of the X-bubbles and expected outcomes.

These demonstrators encompass two priority categories, Laboratory Reports and Hospital Discharge Reports, across six X-Bubbles. For each demonstrator, AS-IS and TO-BE scenarios are presented with associated actors and flows, as well as the demonstrator's plan, work developed and achieved results. Considering the gradual manner in which some X-Bubbles plan the transition to the EEHRxF, in some cases, short-term and long-term scenarios are presented, demonstrating the complexity and alignment necessary for this transition. Furthermore, the analysis of eHN guidelines for each domain is used as a basis for a common understanding of the format, allowing verification of alignment levels and convergence needs. Finally, a format maturity model was applied to the X-Bubbles, allowing us to check in what stage they are and the path they need to take to achieve the full implementation of the EEHRxF.

As next steps, the lessons learned taken from the feasibility demostrators will continue to be compiled and will be presented in D4.4 - (D4.3) X-Bundle refinement Report (M24).



Annex I – X-Bubble 1 Hungarian Laboratory Codes for Diabetes

Hungarian laboratory result code	Short code	Unit	UCUM code	Codable concept	LOINC Code	LOINC name	Hungarian procedure code
LE-56	ALBU	g/L	g/L		1751-7	Albumin [Mass/volume] in Serum or Plasma	21040
LE-72	ALBU	g/L	g/L		2862-1	Albumin [Mass/volume] in Serum or Plasma by Electrophoresis	21042
LE-66	ALBS	%	%		13980-8	Albumin/Protein.total in Serum or Plasma by Electrophoresis	21042
LE-47	AP	U/L	U/L		6768-6	Alkaline phosphatase [Enzymatic activity/volume] in Serum or Plasma	24720
LE-300		umol/L OR: negative	umol/L	{negative}	68367-2	Bilirubin.total [Moles/volume] in Urine by Automated test strip	22550
LE-143	DBIL	umol/L	umol/L		14629-0	Bilirubin.direct [Moles/volume] in Serum or Plasma	21151
LE-170	EGFR	mL/min/1. 73m2			62238-1	Glomerular filtration rate/1.73 sq M.predicted [Volume Rate/Area] in Serum, Plasma or Blood by Creatinine-based formula (CKD-EPI)	
LE-46	GGTL	U/L	U/L		2324-2	Gamma glutamyl transferase [Enzymatic activity/volume] in Serum or Plasma	24640
LE-144	GLU	mmol/L	mmol/L		14749-6	Glucose [Moles/volume] in Serum or Plasma	21310
LE-133	PGLC	mmol/L	mmol/L		14771-0	Fasting glucose [Moles/volume] in Serum or Plasma	21310
LE-304		mmol/L	mmol/L		59156-0	Glucose [Moles/volume] in Urine by Automated test strip	22550
LE-145	GLCPRE	mmol/L	mmol/L		40193-5	Glucose [Moles/volume] in Serum or Plasmapre- meal	21310
LE-146	GLCPOST	mmol/L	mmol/L		53094-9	Glucose [Moles/volume] in Serum or Plasmapost meal	21310



LE-157	GLCPREINZ	mmol/L	mmol/L	54257-1	Glucose [Moles/volume] in Serum or Plasmapre dose insulin IV	21310
LE-163	GLCINZ120	mmol/L	mmol/L	54258-9	Glucose [Moles/volume] in Serum or Plasma2 hours post dose insulin IV	21310
LE-158	GLCINZ15	mmol/L	mmol/L	54260-5	Glucose [Moles/volume] in Serum or Plasma15 minutes post dose insulin IV	21310
LE-159	GLCINZ30	mmol/L	mmol/L	54263-9	Glucose [Moles/volume] in Serum or Plasma30 minutes post dose insulin IV	21310
LE-160	GLCINZ45	mmol/L	mmol/L	54264-7	Glucose [Moles/volume] in Serum or Plasma45 minutes post dose insulin IV	21310
LE-161	GLCINZ60	mmol/L	mmol/L	54265-4	Glucose [Moles/volume] in Serum or Plasma1 hour post dose insulin IV	21310
LE-162	GLCINZ90	mmol/L	mmol/L	54267-0	Glucose [Moles/volume] in Serum or Plasma1.5 hours post dose insulin IV	21310
LE-147	GLCO	mmol/L	mmol/L	14996-3	Glucose [Moles/volume] in Serum or Plasmapre 75 g glucose PO	21310
LE-151	GLC120	mmol/L	mmol/L	14995-5	Glucose [Moles/volume] in Serum or Plasma2 hours post 75 g glucose PO	21310
LE-152	GLC3H	mmol/L	mmol/L	32320-4	Glucose [Moles/volume] in Serum or Plasma3 hours post 75 g glucose PO	21310
LE-148	GLC30	mmol/L	mmol/L	32319-6	Glucose [Moles/volume] in Serum or Plasma30 minutes post 75 g glucose PO	21310
LE-153	GLC4H	mmol/L	mmol/L	32321-2	Glucose [Moles/volume] in Serum or Plasma4 hours post 75 g glucose PO	21310
LE-154	GLC5H	mmol/L	mmol/L	32322-0	Glucose [Moles/volume] in Serum or Plasma5 hours post 75 g glucose PO	21310
LE-149	GLC60	mmol/L	mmol/L	51597-3	Glucose [Moles/volume] in Serum or Plasma1 hour post 75 g glucose PO	21310
LE-150	GLC90	mmol/L	mmol/L	55351-1	Glucose [Moles/volume] in Serum or Plasma1.5 hours post 75 g glucose PO	21310
LE-43	GOT	U/L	U/L	1920-8	Aspartate aminotransferase [Enzymatic activity/volume] in Serum or Plasma	24600



LE-44	GPT	U/L	U/L	1742-6	Alanine aminotransferase [Enzymatic activity/volume] in Serum or Plasma	24610
LE-140	HDL	mmol/L	mmol/L	14646-4	Cholesterol in HDL [Moles/volume] in Serum or Plasma	2142A
LE-171	HBACL	mmol/mo	mmol/mol	59261-8	Hemoglobin A1c/Hemoglobin.total in Blood by IFCC protocol	28494
LE-172	HBA1CL	%	%	17856-6	Hemoglobin A1c/Hemoglobin.total in Blood by HPLC	28494
LE-87	INZ	uU/mL	u[IU]/mL	20448-7	Insulin [Units/volume] in Serum or Plasma	23310
LE-93	INZ12O	uU/mL	u[IU]/mL	27860-6	Insulin [Units/volume] in Serum or Plasma2 hours post 75 g glucose PO	23310
LE-94	INZ18O	uU/mL	u[IU]/mL	27861-4	Insulin [Units/volume] in Serum or Plasma3 hours post 75 g glucose PO	23310
LE-95	INZ240	uU/mL	u[IU]/mL	27862-2	Insulin [Units/volume] in Serum or Plasma4 hours post 75 g glucose PO	23310
LE-90	INZ3O	uU/mL	u[IU]/mL	30362-8	Insulin [Units/volume] in Serum or Plasma30 minutes post 75 g glucose PO	23310
LE-91	INZ60	uU/mL	u[IU]/mL	27830-9	Insulin [Units/volume] in Serum or Plasma1 hour post 75 g glucose PO	23310
LE-92	INZ90	uU/mL	u[IU]/mL	27834-1	Insulin [Units/volume] in Serum or Plasma1.5 hours post 75 g glucose PO	23310
LE-89	INZFA	uU/mL	u[IU]/mL	47668-9	Insulin [Units/volume] in Serum or Plasmapre dose glucose	23310
LE-88	INZPREGL	uU/mL	u[IU]/mL	47669-7	Insulin [Units/volume] in Serum or Plasmapre dose glucagon	23310
LE-136	CREA	umol/L	umol/L	14682-9	Creatinine [Moles/volume] in Serum or Plasma	21141
LE-45	LDH	U/L	U/L	14805-6	Lactate dehydrogenase [Enzymatic activity/volume] in Serum or Plasma by Pyruvate to lactate reaction	24500
LE-141	LDLK	mmol/L	mmol/L	69419-0	Cholesterol in LDL [Moles/volume] in Serum or Plasma by Direct assay	21422
LE-142	BIL	umol/L	umol/L	14631-6	Bilirubin.total [Moles/volume] in Serum or Plasma	21150
LE-55	OFEH	g/L	g/L	2885-2	Protein [Mass/volume] in Serum or Plasma	21020
LE-138	CHOL	mmol/L	mmol/L	14647-2	Cholesterol [Moles/volume] in Serum or Plasma	21420



LE-21	PTIDO	sec	s		5902-2	Prothrombin time (PT)	28620
LE-22	PTR	sec/sec	s/s		5894-1	Prothrombin time (PT) actual/Normal	28620
LE-24	PTKEV	sec	S		5901-4 Prothrombin time (PT) in Control Plate by Coagulation assay		28620
LE-25	PTB+K	sec	s			Prothrombin time (PT) factor substitution in Platelet poor plasma by Coagulation assayimmediately after addition of normal plasma	28620
LE-139	TG	mmol/L	mmol/L		14927-8	Triglyceride [Moles/volume] in Serum or Plasma	21411
LE-322	UCRE	umol/L	umol/L		14683-7	Creatinine [Moles/volume] in Urine	22111
LE-323	UCREGY	umol/L	umol/L		55593-8	Creatinine [Moles/volume] in Urine collected for unspecified duration	22111
LE-338	UMALB	mg/L	mg/L		14957-5 Microalbumin [Mass/volume] in Urine		22042
LE-339	UMALB	mg/L	mg/L		100158-5	Microalbumin [Mass/volume] in Urine collected for unspecified duration	22042



Annex II – X-Bubble 1 eHN guidelines analysis

					Orga	nisation to Orga	anisation - bubble 1	- OKFO	
			Preferred Code	Danningd		Have	this information ava	ilable?	
#	Field	Field description	System	Required Optional Not required	Cardinality	(Y)es (N)o (S)tructured	Code System	Value Sets	Comments
A.1 Repor	t header data element	rs ·							
A.1.1 Iden	tification of the patier	nt/subject							
A.1.1.1	Family name/surname	The family name/surname/last name of the patient. This field can contain more than one element or multiple fields could be present.		Required	1	Y			Name may not be available in structured format
A.1.1.2	Given name	The given name/first name of the patient (also known as forename or first name). This field can contain more than one element.		Optional	0*	N			
A.1.1.3	Date of birth	The date of birth of the patient [ISO TS 22220]. As age of the patient might be important for correct interpretation of the test result values, complete date of birth should be provided.	Complete date, without time, following the ISO 8601	Required	1	S	N/A		
A.1.1.4	Personal identifier	An identifier of the patient that is unique within a defined scope. Example: National ID (birth number) for Czech patient. Multiple identifiers could be provided.		Required	1	S	type of identifier is proprietary code system issued by Health Insurance Fund		typically SSN is used
A.1.1.5	Gender	This field must contain a recognised valid value for "administrative gender". If different, "physiological gender" should be communicated elsewhere.	HL7 Administrative Gender	Required	1	S	proprietary code system issued by Health Insurance Fund	0 Male, 1 Female, 9 unknown	
A.1.2 Patio	ent/subject related co								
A.1.2.1	Address	Mailing and home or office addresses. The addresses are always sequences of address parts (e.g. street address line, country, ZIP code, city) even if postal address formats may vary depending on the country. An address may or may not include a specific use code; if this	ISO 3166	Optional	01	N			



			1		•			
		attribute is not present it is assumed to be the						
		default address useful for any purpose.						
		Telecommunication contact information						
A.1.2.2	Telecom	(addresses) associated to a person. Multiple		Optional	0*	N		
		telecommunication addresses might be provided.						
A.1.3 Heal	th insurance and payr	nent information						
A.1.3.1	Health insurance information	Health insurance information is not always required, however, in some jurisdictions, the insurance number is also used as the patient identifier. It is necessary not just for identification but also forms access to funding for care.		Optional	01	N		SSN is used for patient identification. Private health insurance information is not transmitted to EESZT
A.1.3.1. 1	Health insurance code	Unique health insurance company identification code.		Optional	01	N		
A.1.3.1.	Health insurance	Full, official name of the healthcare insurance		Optional	01	N		
2	name	provider.		·				
A.1.3.1.	Health insurance	Number or code under which the insured person		Optional	01	N		
3	number	is registered at the insurance provider.		•				
		ended recipient or recipients of the report, additional	recipients might be					
identified	by the ordering party,	e.g. GP, other specialist), if applicable	T					
A.1.4.1	Recipient identifier	The health professional identification number. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID such as the license or registration number. In case when recipient is not a health professional, e.g. patient, appropriate personal identifier should be used.		Not Required		N		Lab report is sent as any other kind of medical document to the EESZT and later can be retrived by any HCP treating the patient, however data governance rules set by the patient govern the access.
A.1.4.2	Recipient name	Person name.		Not Required		N		



A.1.4.3	Recipient organization	The healthcare provider organization information.		Not Required		N		
A.1.4.4	Address	Mailing and home or office addresses. The addresses are always sequences of address parts (e.g., street address line, country, ZIP code, city) even if postal address formats may vary depending on the country. An address may or may not include a specific use code; if this attribute is not present it is assumed to be the default address useful for any purpose.		Not Required		N		
A.1.4.5	Country	Country of the recipient.	ISO 3166	Not Required		N		
A.1.4.6	Telecom	Telecommunication contact information (addresses) associated to a person. Multiple telecommunication addresses might be provided.		Not Required		N		
A.1.5 Auth	or (by whom the Labo	ratory result report or a subset of its results was aut	:hored)					
A.1.5.1	Author identifier	The health professional or authoring device identification number. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID such as the license or registration number.		Optional	01	N		
A.1.5.2	Author name	Person or device name.		Optional	01	N		
A.1.5.3	Author organization	The healthcare provider organization information.		Required	01	S		Identifier from healthcare provider's registry
A.1.6 Lega	l authenticator (The p	erson taking responsibility for the medical content of	f the document)					
A.1.6.1	Legal authenticator	The health professional identification number. Either an internal identifier assigned by a healthcare provider institution or identifier (preferably) a national health professional ID such as the license or registration number.		Optional	01	N		Lab reports are typically automatically sent by the HIS/LIS to EESZT after validation
A.1.6.2	Legal authenticator name	Person name.		Optional	01	N		
A.1.6.3	Legal authenticator organization	The healthcare provider organization information.		Optional	01	S		Identifier from healthcare



									provider's
A.1.6.4	Authentication date and time	Date and time when the document was authorized.	ISO 8601	Required	1	S			registry
A.1.7 Resu	ılt validator	authorizeu.							
A.1.7.1	Result validator identifier	The health professional identification number. Either an internal identifier assign by a healthcare provider institution or (preferably) a national health professional ID such as the license or registration number.		Required	1	S			Identifier from physician's or associate professional's registry
A.1.7.2	Result validator name	Person name.		Required	1	Υ			
A.1.7.3	Result validator organisation	The healthcare provider organisation information.		Required	1	S			
A.1.7.4	Validation date and time	Date and time when the document was validated.	ISO 8601	Optional	01	N			
A.1.8 Labo	oratory report metada	ta							
A.1.8.1	Document type	A coded type of the document. Fixed value "Laboratory report"	LOINC	Required	1	S			Appropriate code can be provided
A.1.8.2	Document status	The status of the laboratory test result report. E.g., preliminary, final.	hI7:DiagnosticReport Status	Required	1	S			Will be set to "final" because only validated results are sent to EESZT
A.1.8.3	Report date and time	Date and time of the result report creation.	ISO 8601	Required	1	S			
A.1.8.4	Document title	Document title, e.g. "Laboratory Result report"		Optional	01	Υ			
A.1.8.5	Study type	Type (or types) of the laboratory study performed.	LOINC / SNOMED CT	Required	1	S	Appropriate generic code	1:26436-6 - LABORATOR Y STUDIES	Appropriate generic code (1:26436-6 - LABORATORY STUDIES) can be provided
A.1.8.6	Report custodian	Organisation that is in charge of maintaining the laboratory report		Optional	01	S			Identifier from healthcare provider's registry



A.1.8.7	Confidentiality	Level of confidentiality of the document. Implicit value is normal.	hl7:Confidentiality	Optional	01	N		Confidentialit y is set by data governance of EESZT
A.1.8.8	Language	Language in which the document is written. Language is expressed by the ISO language code.	BCP 47	Not Required		N		Can be automatically set to HU
A.1.8.9	Version	Version of the document.		Optional	01	S		EESZT maintains version control
A.2 Order i	information (Laborato	ry Result Report could respond to multiple test orde	rs)					
A.2.1	Order Id	An identifier of the laboratory test order. Laboratory Result Report may respond to multiple orders.		Optional	01	N		
A.2.2	Order date and time	Date and time of the order placement.	ISO 8601	Optional	01	N		
A.2.3	Order placer identifier	The health professional identification number. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID such as the license or registration number. In case when order placer is not a health professional, e.g. by patients themselves where applicable, appropriate personal identifier should be used.		Optional	01	S		Identifier from physician's registry
A.2.4	Order placer name	Person name.		Optional	01	Υ		
A.2.5	Order placer contact details	Contact details of order placer (address and telecom details).		Optional	01	N		
A.2.6	Order placer organization	Order placer organization information.		Optional	01	S		Identifier from healthcare provider's registry
A.3 Order r	reason (Laboratory Re	sult Report could respond to multiple reasons)						
A.3.1	Problem / diagnosis / condition description	Health conditions affecting the health of the patient and are important to be known for a health professional during a health encounter. Clinical conditions of the subject relevant for the results interpretation.	ICD-10 (ICD-11 when available) SNOMED CT Orphacode	Optional	01	S	Hungarian implementation of ICD10	
A.4 Specim	en information							



A.4.1	Specimen identifier	An identifier of the specimen which is unique within in a defined scope. Example: identifier assigned by ordering system, identifier assigned by laboratory etc. Multiple identifiers can be used.		Optional	01	N		Not likely to be present for routine lab examinations like diabetes care
A.4.2	Type of species	Biologic type of species for laboratory result reports bound to non- human subjects.	SNOMED CT	Optional	01	N		
A.4.3	Material	Specimen material.	SNOMED CT	Optional	01	N		
A.4.4	Collection period	Collection date time or period.	ISO 8601	Optional	01	S		
A.4.5	Anatomic location	Anatomic location (body location, laterality) where the material is collected, e.g. Elbow, left	SNOMED CT	Optional	01	N		
A.4.6	Morphology	Morphological abnormalities of the anatomical location where the material is taken, for example wound, ulcer.	SNOMED CT	Optional	01	N		
A.4.7	Source Device	If the material is not collected directly from the patient but comes from a patient-related object, e.g. a catheter	SNOMED CT EMDN	Optional	01	N		
A.4.8	Collection procedure/metho d	If relevant for the results, the method of obtaining the specimen.	SNOMED CT	Optional	01	N		
A.4.9	Received date	Date and time that the material is handed over at the laboratory or specimen collection centre.	ISO 8601	Optional	01	N		
A.5 Result	s data elements							
A.5.1 Labo	ratory report narrativ	e						
A.5.1.1	Narrative report	Entire report (textual summary inside the laboratory result report document) as issued by the laboratory.		Required	1	Υ		Report content should be rendered in human readable format
A.5.1.2	Comments, interpretation and recommendations	Comments, such as a textual interpretation or advice accompanying the result report, for example.		Optional	01	N		
A.5.2 Obse	ervation details (repor	t could consist of multiple observations)						
A.5.2.1	Observation date	Date and time of the observation	ISO 8601	Optional	01	N		Typically date and time is specified on the level of the lab report



A.5.2.3	Observation code	Code representing the observation using the agreed code systems.	LOINC NPU SNOMED CT	Required	1	S	LOINC	At the moment only the most important laboratory parameters (about 420) are handled in structured form. Almost every is mapped to LOINC
A.5.2.3. 1	Observation name	Full name of the observation according to the used test coding standard.		Optional	01	N		
A.5.2.3. 2	Observation original name	Original (conventional) name of the observation as used by the laboratory		Optional	01	Υ		
A.5.2.3.	Observation display name	Simplified (short name of the observation) for display.		Required	1	Υ		
A.5.2.4	Observation method	Observation method (measurement principle) to obtain the result.	SNOMED CT	Optional	01	N		Not likely to be present for routine lab examinations like diabetes care
A.5.2.5	Observation device	Device (analyser), laboratory test kit and used calibrator information (identifier, type, name, model, manufacturer)	SNOMED CT EMDN	Optional	01	N		
A.5.2.8	Order	Identifies order and order placer this observation belongs to.		Optional	01	N		
A.5.2.9	Performer	Identifies the originator/author and provides provenance information about the source of the results data that may have not originated with the source of the whole Laboratory Report document.		Optional	01	N		Not likely to be present for routine lab examinations like diabetes care
A.5.2.10	Reporter	With certain observation results, e.g. there may also be an interpreter or a person responsible for validation.		Not Required	01	N		Validator is typically given on the report level



A.5.2.11	Observation result	Result of the observation including text, numeric and coded results of the measurement and measurement uncertainty. Content of the observation result will vary according to the type of the observation.	SNOMED CT (for ordinal or nominal scale results and result interpretation) UCUM (for units)	Required	1	S		Appropriate structure can be provided
A.5.2.12	Observation interpretation	Information about reference intervals and result interpretation.	SNOMED CT HL7 v3 Code System ObservationInterpret ation	Required	1	S		Appropriate structure can be provided
A.5.2.13	Result description	Comments and narrative representation of the observation result and findings.		Not Required		N		
A.5.2.14	Accreditation status	Accreditation status of the laboratory for the particular observation.		Not Required		N		



Annex III – X-Bubble 2 eHN guidelines analysis

					Orgai	nisation to Pat	ient - bubble 2 - (CHUdSA	
				Required		Have this i	nformation avail	able?	
#	Field	Field description	Preferred Code System	Optional Not required	Cardinality	(Y)es (N)o (S)tructured	Code System	VaLue Sets	Comments
	rt header data elemen								
A.1.1 Ide	ntification of the patie	<u>, · </u>							
A.1.1.1	Family name/surname	The family name/surname/last name of the patient. This field can contain more than one element or multiple fields could be present.		Required	11	Υ			
A.1.1.2	Given name	The given name/first name of the patient (also known as forename or first name). This field can contain more than one element.		Optional	01	N			
A.1.1.3	Date of birth	The date of birth of the patient [ISO TS 22220]. As age of the patient might be important for correct interpretation of the test result values, complete date of birth should be provided.	Complete date, without time, following the ISO 8601	Required	11	Υ			
A.1.1.4	Personal identifier	An identifier of the patient that is unique within a defined scope. Example: National ID (birth number) for Czech patient. Multiple identifiers could be provided.		Required	11	Υ			SNS number
A.1.1.5	Gender	This field must contain a recognised valid value for "administrative gender". If different, "physiological gender" should be communicated elsewhere.	HL7 Administrative Gender	Required	11	S	HL7 Administrative Gender		
A.1.2 Pat	ient/subject related co	ontact information							
A.1.2.1	Address	Mailing and home or office addresses. The addresses are always sequences of address parts (e.g. street address line, country, ZIP code, city) even if postal address formats may vary depending on the country. An address may or may not include a specific use code; if this attribute is not present it is assumed to be the default address useful for any purpose.	ISO 3166	Optional	01	Υ			From national database
A.1.2.2	Telecom	Telecommunication contact information (addresses) associated to a person. Multiple telecommunication addresses might be provided.		Optional	0*	Y			From national database
A.1.3 Hea	Ith insurance and pay	ment information							
A.1.3.1	Health insurance information	Health insurance information is not always required, however, in some jurisdictions, the insurance number is also used as the		Optional	01	Υ			Only when involving



		patient identifier. It is necessary not just for identification but also forms access to funding for care.					insurers (e.g., workplace
A.1.3.1.1	Health insurance code	Unique health insurance company identification code.		Optional	01	Υ	accidents, school, car,
A.1.3.1.2	Health insurance name	Full, official name of the healthcare insurance provider.		Optional	01	Υ	etc.)
A.1.3.1.3	Health insurance number	Number or code under which the insured person is registered at the insurance provider.		Optional	01	Υ	
		ended recipient or recipients of the report, additional recipients n pecialist), if applicable	night be identified by the				Information from the physician who received the report before it is made available to the patient.
A.1.4.1	Recipient identifier	The health professional identification number. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID such as the license or registration number. In case when recipient is not a health professional, e.g. patient, appropriate personal identifier should be used.		Optional	01	S	Internal database in hospital
A.1.4.2	Recipient name	Person name.		Optional	01	Υ	
A.1.4.3	Recipient organization	The healthcare provider organization information.		Optional	01	Υ	
A.1.4.4	Address	Mailing and home or office addresses. The addresses are always sequences of address parts (e.g., street address line, country, ZIP code, city) even if postal address formats may vary depending on the country. An address may or may not include a specific use code; if this attribute is not present it is assumed to be the default address useful for any purpose.		Optional	01	Y	
A.1.4.5	Country	Country of the recipient.	ISO 3166	Optional	01	Υ	
A.1.4.6	Telecom	Telecommunication contact information (addresses) associated to a person. Multiple telecommunication addresses might be provided.		Not Required		N	
A.1.5 Aut	hor (by whom the Lab	oratory result report or a subset of its results was authored)					
A.1.5.1	Author identifier	The health professional or authoring device identification number. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID		Required	11	Y	



							•	
		such						
		as the license or registration number.						
A.1.5.2	Author name	Person or device name.		Required	11	Υ		
A.1.5.3	Author organization	The healthcare provider organization information.		Required	11	Υ		
A.1.6 Lega	al authenticator (The p	erson taking responsibility for the medical content of the docume	ent)					
		The health professional identification number. Either an internal						
		identifier assigned by a healthcare provider institution		Not				
A.1.6.1	Legal authenticator	or identifier (preferably) a national health professional ID such		Required		N		
		as the license or registration number.		•				
	Legal authenticator			Not				
A.1.6.2	name	Person name.		Required		N		
	Legal authenticator			Not				
A.1.6.3	organization	The healthcare provider organization information.		Required		N		
	Authentication date			Not				
A.1.6.4	and time	Date and time when the document was authorized.	ISO 8601	Required		N		
A.1.7 Resi	ult validator			- 4				
		The health professional identification number. Either an internal						
	Result validator	identifier assign by a healthcare provider institution or						
A.1.7.1	identifier	(preferably) a national health professional ID such as the license		Required	11	Υ		
		or registration number.						
	Result validator							
A.1.7.2	name	Person name.		Required	11	Υ		
	Result							
A.1.7.3	validator	The healthcare provider organisation information.		Required	1 1	V		
7.1.7.5	organisation	The ficultificate provider organisation information.		Required	11	'		
	Validation date and							
A.1.7.4	time	Date and time when the document was validated.	ISO 8601	Required	11	Υ		
Δ 1 8 Lah	oratory report metada	ta						
A.1.8.1	Document type	A coded type of the document. Fixed value "Laboratory report"	LOINC	Required	1 1	S	LOINC	
7.1.0.1	Document type	The status of the laboratory test result report. E.g., preliminary,					LOINC	
A.1.8.2	Document status	final.	hl7:DiagnosticReportStatus	Required	11	S	HL7	
	Report date and							
A.1.8.3	time	Date and time of the result report creation.	ISO 8601	Required	11	Υ		
A.1.8.4	Document title	Document title, e.g. "Laboratory Result report"		Optional	01	Y		
A.1.8.5		Type (or types) of the laboratory study performed.	LOINC / SNOMED CT	Required	11	S	SNOMED CT	
A.1.0.3	Study type	Organisation that is in charge of maintaining the laboratory	LOTING / SNOWED CT	Required	11	3	SINUIVIED CT	
A.1.8.6	Report custodian	,		Optional	01	N		
		report						
A.1.8.7	Confidentiality	Level of confidentiality of the document. Implicit value is	hl7:Confidentiality	Required	11	S	HL7	
		normal.						
A.1.8.8	Language	Language in which the document is written. Language is	BCP 47	Optional	01	N		
	<u> </u>	expressed by the ISO language code.		·				
A.1.8.9	Version	Version of the document.		Required	11	S		internal system



A.2 Order	r information (Laborato	ory Result Report could respond to multiple test orders)						
A.2.1	Order Id	An identifier of the laboratory test order. Laboratory Result Report may respond to multiple orders.		Required	11	S		SPMS system for external order and internal system
A.2.2	Order date and time	Date and time of the order placement.	ISO 8601	Required	11	Υ		
A.2.3	Order placer identifier	The health professional identification number. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID such as the license or registration number. In case when order placer is not a health professional, e.g. by patients themselves where applicable, appropriate personal identifier should be used.		Required	11	S		
A.2.4	Order placer name	Person name.		Required	11	Υ		
A.2.5	Order placer contact details	Contact details of order placer (address and telecom details).		Optional	01	Υ		
A.2.6	Order placer organization	Order placer organization information.		Optional	01	S		
A.3 Order	r reason (Laboratory Re	esult Report could respond to multiple reasons)						
A.3.1	Problem / diagnosis / condition description	Health conditions affecting the health of the patient and are important to be known for a health professional during a health encounter. Clinical conditions of the subject relevant for the results interpretation.	ICD-10 (ICD-11 when available) SNOMED CT Orphacode	Optional	01	S	ICD10	
A.4 Speci	men information							
A.4.1	Specimen identifier	An identifier of the specimen which is unique within in a defined scope. Example: identifier assigned by ordering system, identifier assigned by laboratory etc. Multiple identifiers can be used.		Required	11	S		
A.4.2	Type of species	Biologic type of species for laboratory result reports bound to non-human subjects.	SNOMED CT	Required	11	S	SNOMED CT	
A.4.3	Material	Specimen material.	SNOMED CT	Required	11	S	SNOMED CT	
A.4.4	Collection period	Collection date time or period.	ISO 8601	Required	11	Υ		
A.4.5	Anatomic location	Anatomic location (body location, laterality) where the material is collected, e.g. Elbow, left	SNOMED CT	Optional	01	S	SNOMED CT	
A.4.6	Morphology	Morphological abnormalities of the anatomical location where the material is taken, for example wound, ulcer.	SNOMED CT	Optional	01	S	SNOMED CT	
A.4.7	Source Device	If the material is not collected directly from the patient but comes from a patient-related object, e.g. a catheter	SNOMED CT EMDN	Optional	01	S	SNOMED CT	
A.4.8	Collection procedure/method	If relevant for the results, the method of obtaining the specimen.	SNOMED CT	Optional	01	S	SNOMED CT	
A.4.9	Received date	Date and time that the material is handed over at the laboratory or specimen collection centre.	ISO 8601	Optional	01	Υ		
A.5 Resul	ts data elements							
								•



A.5.1 Lab	oratory report narrativ	ve .						
A.5.1.1	Narrative report	Entire report (textual summary inside the laboratory result report document) as issued by the laboratory.		Optional	01	Υ		
A.5.1.2	Comments, interpretation and recommendations	Comments, such as a textual interpretation or advice accompanying the result report, for example.		Optional	01	Y		
A.5.2 Obs	ervation details (repor	rt could consist of multiple observations)						
A.5.2.1	Observation date	Date and time of the observation	ISO 8601	Optional	01	N		
A.5.2.3	Observation code	Code representing the observation using the agreed code systems.	LOINC NPU SNOMED CT	Required	11	S	LOINC	
A.5.2.3.1	Observation name	Full name of the observation according to the used test coding standard.		Optional	01	N		
A.5.2.3.2	Observation original name	Original (conventional) name of the observation as used by the laboratory		Required	11	Υ		
A.5.2.3.3	Observation display name	Simplified (short name of the observation) for display.		Optional	01	Υ		
A.5.2.4	Observation method	Observation method (measurement principle) to obtain the result.	SNOMED CT	Optional	01	S	SNOMED CT	
A.5.2.5	Observation device	Device (analyser), laboratory test kit and used calibrator information (identifier, type, name, model, manufacturer)	SNOMED CT EMDN	Not Required		N		
A.5.2.8	Order	Identifies order and order placer this observation belongs to.		Optional	01	Υ		
A.5.2.9	Performer	Identifies the originator/author and provides provenance information about the source of the results data that may have not originated with the source of the whole Laboratory Report document.		Optional	01	N		
A.5.2.10	Reporter	With certain observation results, e.g. there may also be an interpreter or a person responsible for validation.		Optional	01	N		
A.5.2.11	Observation result	Result of the observation including text, numeric and coded results of the measurement and measurement uncertainty. Content of the observation result will vary according to the type of the observation.	SNOMED CT (for ordinal or nominal scale results and result interpretation) UCUM (for units)	Required	11	S	SNOMED CT	
A.5.2.12	Observation interpretation	Information about reference intervals and result interpretation.	SNOMED CT HL7 v3 Code System ObservationInterpretation	Required	11	S	HL7	
A.5.2.13	Result description	Comments and narrative representation of the observation result and findings.		Not Required		N		
A.5.2.14	Accreditation status	Accreditation status of the laboratory for the particular observation.		Not Required		N		



Annex IV – X-Bubble 3 eHN guidelines analysis

						Orga	nisation to Pati	ient - bubble 3 - CHI	JdSA	
			Durfamed Code					his information ava		
#	Field	Field description	Preferred Code System	Core	Required Optional Not required	Cardinality	(Y)es N(o) (S)tructured	Code System	Value Sets	Comments
HOSPITAL D	ISCHARGE REPORT HEAD	ER								
A.1	Hospital Discharge Rep	ort header data element								
A.1.1	Identification of the pa				Required					
A.1.1.1	Given name	The given name/first name of the patient (also known as forename or first name). This field can contain more than one element.			Optional	01	N			
A.1.1.2	Family name/surname	The family name/surname/last name of the patient. This field can contain more than one element or multiple fields could be present.			Required	11	Y			Name may not be available in structured format
A.1.1.3	Date of birth	Complete date, following the ISO 8601.	ISO 8601		Required	11	Υ			
A.1.1.4	National healthcare patient ID	An identifier of the patient that is unique within a defined scope. Example: National ID (birth number) for a Czech patient. Multiple identifiers could be provided			Required	11	Υ			SNS number
A.1.1.5	Nationality	Nationality of the patient.	ISO 3166		Optional	01	Υ			
A.1.1.6	Gender	This field must contain a recognised valid value for "administrative gender". If different, "physiological gender" should be communicated elsewhere in the relevant clinical information section.	HL7 Administrative Gender		Required	11	S	HL7 Administrative Gender		
A.1.1.7	Country of affiliation	Name of country of affiliation	ISO 3166		Optional	01	Υ			
A.1.2	Patient/subject related	contact information								
A.1.2.1	Patient address				Optional					
A.1.2.1.1	Address	Mailing and home or office addresses. The addresses are always sequences of address parts (e.g. street address line, country, postcode, city) even if postal address formats may vary depending on the country. An address may or may not include a specific use code; if this attribute	ISO 3166		Optional	01	S	HL7 FHIR Datatypes		From national database



						1			
		is not present it is assumed to be the							
		default address useful for any purpose.							
		Telecommunication contact information							
		(addresses) associated with a person, such						HL7 FHIR	From national
A.1.2.1.2	Telecom	as phone number, email, or messaging			Optional	0*	S	Datatypes	database
	Preferred health professi specific information in the problem and the rare dispatient (this section). 2.1 Identifier of the HP 2.2 Name of the HP 2.3 Role of the HP 2.4 HP Organisation	service. Multiple telecommunication						Dutatypes	database
		addresses might be provided.							
		ssional (HP) - This section can be repeated an							
A.1.2.2		the document, for example a link between a			Optional				
7.1.2.12.12		lisease specialist responsible for the care of the	ne individual		- - - - - - - - - -				
	patient (this section).	_							
		An identifier of the health professional that							
A.1.2.2.1	Identifier of the HP	is unique within a defined scope. Example:			Optional	01	Υ		
		National health professional ID. Multiple							
		identifiers could be provided.							
		Name of the health professional that has							
		been treating or taking responsibility for							
A.1.2.2.2	Name of the HP	the patient.[the structure of the name will			Optional	01	Υ		
		be the same as for the patient (given							
		name, family name / surname)]							
A.1.2.2.3	Role of the HP	Health professional role. Multiple roles	ISCO		Optional	01	N		
11221		could be provided.							
A.1.2.2.4	HP Organisation	Health professional organisation			Optional	01	Υ		
		Mailing and home or office addresses. The							
		addresses are always sequences of address							
		parts (e.g. street address line, country,							
44225	Addisse	postcode, city) even if postal address	150 24.55		0	0.4	6	HL7 FHIR	
A.1.2.2.5	Address	formats may vary depending on the	ISO 3166		Optional	01	S	Datatypes	
		country. An address may or may not							
		include a specific use code; if this attribute							
		is not present it is assumed to be the							
		default address useful for any purpose. Telecommunication contact information							
		(addresses) associated with a person, such							
A.1.2.2.6	Telecom	as phone number, email, or messaging			Optional	0*	S	HL7 FHIR	
A.1.2.2.0	relecom	service. Multiple telecommunication	0	Ориона	0	3	Datatypes		
		addresses might be provided.							
A.1.2.3	Contact person / legal of	guardian (multiple contacts could be provided	1		Required				
A.1.2.3	Contact person, legal g	Role of the contact person: legal guardian,	,		Required				
A.1.2.3.1	Role of that person	next of kin, other person to contact.	HL7 RoleClass		Required	11	S	HL7	
		Relationship type with the patient (e.g.	HL7 RoleCode						
A.1.2.3.2	Relationship level	father, wife, daughter)	SNOMED CT		Required	11	S	HL7	
		iddici, wile, daugitter)	SINOIVILD CI						



		C' full						
	0.	Given name of the contact						
A.1.2.3.4	Given name	person/guardian . This field can contain		Optional	01	N		
		more than one element.						
		Family name of the contact person. This						
		field can contain more than one element						
A.1.2.3.5	Family name/surname	[the structure of the name will be the		Required	11	Υ		
		same as for the patient (given name, family						
		name / surname)]						
		Mailing, home or office addresses. The						
		addresses are always sequences of address						
		parts (e.g. street address line, country,						
		postcode, city) even if postal address					HL7 FHIR	
A.1.2.3.6	Address	formats may vary depending on the	ISO 3166	Optional	01	S		
		country. An address may or may not					Datatypes	
		include a specific use code; if this attribute						
		is not present it is assumed to be the						
		default address useful for any purpose.						
		Telecommunication contact information						
		(addresses) associated with a person, such						
A.1.2.3.7	Telecom	as phone number, email, or messaging		Required	11	S	HL7 FHIR	
,	2.3.7 Telecom	service. Multiple telecommunication					Datatypes	
		addresses might be provided.						
	Contact person	j .						
A.1.2.3.8	organisation	Contact person organisation information.		Optional	01	N		
		ayment information - Health insurance inform	nation is not					
	-	ver, in some jurisdictions, the insurance numb						
A.1.3		is necessary not just for identification but al		Optional				
	funding for care.							
		Unique health insurance company						
A.1.3.1	Health insurance code	identification code.		Optional	01	Υ		
	Health insurance	Full, official name of the healthcare						
A.1.3.2	name	insurance provider.		Optional	01	Υ		
		Number or code under which the insured						
A.1.3.3	Health insurance	person is registered at the insurance		Optional	01	Υ		
	number	provider.						
A.1.4	Information recipient -	(intended recipient or recipients of the repor	t), if applicable	Not Required				
		The health professional or patient						
		identifier. Either an internal identifier						
		assigned by a healthcare provider						
A.1.4.1	Recipient identifier	institution or (preferably) a national health		Not Required		N		
		professional ID such as the licence or						
		registration number. In case when the						
		replaced in indirect. In case when the						



		recipient is not a health professional, e.g.					
		patient, appropriate personal identifier					
		could be used.					
		Person name [the structure of the name will					
A.1.4.2	Recipient name	be the same as for the patient (given name,		Not Required	N		
7	Treospicine name	family name / surname)].					
		The healthcare provider organisation					
	Bestelent energianting	identifier. Identifier that is unique within a					
A.1.4.3	Recipient organisation ID	defined scope. Example: National		Not Required	N		
	טו	healthcare provider ID. Multiple identifiers					
		could be provided.					
A.1.4.4	Recipient organisation	The healthcare provider organisation		Not Required	N		
7.1.1.1	recipient organisation	information.		Not required	,,		
		Mailing and home or office addresses. The					
		addresses are always sequences of address					
		parts (e.g. street address line, country,					
A.1.4.5	Address	postcode, city) even if postal address formats may vary depending on the		Not Required	l _N		
A.1.4.5	Address	country. An address may or may not		Not Required	IN .		
		include a specific use code; if this attribute					
		is not present it is assumed to be the					
		default address useful for any purpose.					
A 1 4 C	Carratur	Country of the intended recipient as part	50.2166	Net Peruined	N		
A.1.4.6	Country	of the address.	SO 3166	Not Required	N		
		Telecommunication contact information					
		(addresses) associated to a person, such as					
A.1.4.7	Telecom	phone number, email, or messaging		Not Required	N		
		service. Multiple telecommunication					
		addresses might be provided.					
A.1.5	could be provided.	lospital discharge report was/were authored). I	Multiple authors	Not Required			
		The health professional identifier that will					
		allow addressing recipients within a					
		national or international data exchange					
A.1.5.1	Author identifier	infrastructure, such as the licence or		Not Required	N		
		registration number. In case when the					
		recipient is not a health professional, e.g.					
		patient, appropriate personal identifier should be used.					
		Person name [the structure of the name					
A.1.5.2	Author name	will be the same as for the patient (given		Not Required	N		
A.1.J.Z	Addition figure	name, family name / surname)].		Not nequired	14		
		name, raming flame, and flame, j.					



	_						1	
A.1.5.3	Author organisation ID	The healthcare provider organisation identifier. Identifier that is unique within a defined scope. Example: National healthcare provider ID. Multiple identifiers could be provided.		Not Required		N		
A.1.5.4	Author organisation	The healthcare provider organisation information.		Not Required		N		
A.1.5.5	Date Time	Date and time of the last modification of the document by its Author.	ISO 8601	Not Required		N		
A.1.6	Attester (multiple attes	ters could be provided)		Not Required				
A.1.6.1	Attester identifier	The health professional identification number. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID such as the licence or registration number.		Not Required		N		
A.1.6.2	Attester name	Person name [the structure of the name will be the same as for the patient (given name, family name / surname)].		Not Required		N		
A.1.6.3	Attester organisation ID	The healthcare provider organisation identifier. Identifier that is unique within a defined scope. Example: National healthcare provider ID. Multiple identifiers could be provided.		Not Required		N		
A.1.6.4	Attester organisation	The healthcare provider organisation information.		Not Required		N		
A.1.6.5	Approval date and time	Date and time of the approval of the document by Attester.	ISO 8601	Not Required		N		
A.1.7	Legal authenticator (Th document)	e person taking responsibility for the medica	I content of the	Required				
A.1.7.1	Legal authenticator identifier	The health professional identification number. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID such as the licence or registration number. Multiple identifiers could be provided.		Required	11	Y		
A.1.7.2	Legal authenticator name	Person name [the structure of the name will be the same as for the patient (given name, family name / surname)].		Required	11	Y		
A.1.7.3	Legal authenticator organisation ID	The healthcare provider organisation identifier. Identifier that is unique within a		Required	11	Υ		



		defined scope. Example: National							
		healthcare provider ID. Multiple identifiers							
		could be provided.							
A.1.7.4	Legal authenticator	The healthcare provider organisation			Required	11	Υ		
A.1.7.4	organisation	information.			Required	11	'		
A.1.7.5	Authentication date	Date and time when the document was	ISO 8601		Required	11	Y		
A.1.7.5	and time	authorised.	130 8001		Required	11	'		
A.1.8	Document metadata				Required				
A.1.8.1	Document ID	Unique identifier of the document			Required	11	Υ		
4403	B	Identifies the type of document at hand,	LOING		Danish d	4.4	s	LOING	
A.1.8.2	Document type	e.g. Hospital discharge report.	LOINC	-	Required	11	5	LOINC	
		The status of the Hospital discharge report.	hl7:CompositionS						
A.1.8.3	Document status	E.g., preliminary, final.	tatus		Required	11	S	HL7	
		Date and time of the Hospital discharge							
A.1.8.4	Report date and time	report creation.	ISO 8601		Required	11	Υ		
		Document title, fix value "Hospital					,,		
A.1.8.5	Document title	discharge report".			Required	11	Υ		
		Organisation that is in charge of							
		maintaining the report [this element will							
A.1.8.6	Report custodian	include organisation ID, name, address			Required	11	Υ		
	'	etc., as other elements describing							
		organisations].							
	0 61	Level of confidentiality of the document.	hl7:Confidentialit						
A.1.8.7	Confidentiality	Implicit value is normal.	y		Required	11	S	HL7	
		Language in which the document is	,						
A.1.8.8	Language	written. Language is expressed by the ISO	ISO 639		Required	11	Υ		
		language code.							
A.1.8.9	Version	Version of the document			Required	11	Υ		
HOSPITAL D	ISCHARGE REPORT BODY								
A.2.0	Hospital Discharge Rep	ort in its narrative form		Core	Required	11	Υ		
A.2.1	Advance directives				Optional				
		Only directives being expressed during							
A.2.1.1	Living will	current inpatient stay. Multiple records of			Optional				
,	2.00.05	living wills could be provided.			Ориони				
		The date and time on which the living will							
A.2.1.1.1	Date and time	was recorded.	ISO 8601		Optional	01	Υ		
		Type of a living will, e.g. Do not resuscitate,							
A.2.1.1.2	Туре	donorship statement, power of attorney	SNOMED CT		Optional	01	S	Snomed CT	
,	1,700	etc.	SITOIVIED CI		Optional	01		Shomed er	
A.2.1.1.3	Comment	Comment on the living will.			Optional	01	V		
7.2.1.1.5	Comment	Comment on the living will.	ICD-10*		Optional				
A.2.1.1.4	Related conditions		SNOMED CT		Optional	01	S	ICD-10	
			SINOIVIED CI						



		The problem or disorder to which the living will applies. Multiple fields could be provided.	Orphacode if rare disease is diagnosed						
A.2.1.1.5	Living will document	Scanned source document with the living will and the patient's signature, such as a PDF.			Optional	01	Y		
A.2.2	Alerts			Core	Required				
A.2.2.1	Allergy and Intolerance	A record of allergies and intolerances (prim new allergies or intolerances that occurred hospital stay).		Core	Required				
A.2.2.1.1	Allergy description	Textual description of the allergy or intolerance		Core	Required	11	Υ		
A.2.2.1.2	Type of propensity	This element describes whether this condition refers to an allergy, non-allergy intolerance, or unknown class of intolerance (not known to be allergy or intolerance)	SNOMED CT		Required	11	S	Snomed CT	
A.2.2.1.3	Allergy manifestation	Description of the clinical manifestation of the allergic reaction including date of manifestation and severity. Example: anaphylactic shock, angioedema (the clinical manifestation also gives information about the severity of the observed reaction). Multiple manifestations could be provided.	SNOMED CT	Core	Required	11	S	Snomed CT	
A.2.2.1.4	Severity	Severity of the clinical manifestation of the allergic reaction.	SNOMED CT		Optional	01	Υ		
A.2.2.1.5	Criticality	Potential risk for future life-threatening adverse reactions when exposed to a substance known to cause an adverse reaction.	SNOMED CT		Optional	01	Υ		
		Date of onset of allergy, e.g., date of the	ISO 8601						
A.2.2.1.6	Onset date	first observation of the reaction. Could be also expressed using a date, partial date or life period (childhood, adolescence).	SNOMED CT (Age group)		Optional	01	S	Snomed CT	
A.2.2.1.7	End date	Date of resolution of the allergy (e.g. when the clinician deemed there is no longer any need to track the underlying condition)	ISO 8601 SNOMED CT (Age group)		Optional	01	S	Snomed CT	
A.2.2.1.8	Status	Current status of the allergy or intolerance, for example, whether it is active, in remission, resolved, and so on	Active, resolved,		Optional	01	Y		



A.2.2.1.9	Certainty	Assertion about the certainty associated with a propensity, or potential risk, of a reaction to the identified substance. Diagnostic and/or clinical evidence of condition.	SNOMED CT		Optional	01	S	Snomed CT	
A.2.2.1.10	Agent or Allergen	A specific allergen or other agent/substance (drug, food, chemical agent, etc.) to which the patient has an adverse reaction propensity.	SNOMED CT ATC (IDMP / EMA SPOR SMS)	Core	Required	11	S	Snomed CT	
A.2.2.2	Medical alerts (relevan	t for the respective hospital stay)		Core	Required				
A.2.2.2.1	Healthcare alert description	A warning, other than included in allergies. The warning can be entered in code (there are codes for frequently used alerts) but seeing the dynamic nature of the warnings, these alerts will often be entered as free text. Any clinical information that is imperative to know so that the life or health of the patient does not come under threat. Example 1: the patient has a rare disease that requires special treatment Example 2: Airway Alert / Difficult Intubation Example 3: Diagnoses such as malignant hyperthermia, porphyria, and bleeding disorders; special treatments like	LOINC	Core	Required	1*	S	LOINC	
A.2.3	Encounter	anticoagulants or immunosuppressants; implanted devices. Example 4: transplanted organs illustrate other information that has to be taken into account in a healthcare contact. Example 5: participation in a clinical trial that has to be taken into account in a healthcare contact.		Coro	Poguirod				
A.2.3	Encounter	The Law of the constant halfs	LIZ 2 A-15 :	Core	Required				
A.2.3.1	Encounter type	The type of the encounter whether inpatient or short stay encounter.	hl7v3:ActEncount erCode		Required	11	Υ		
A.2.3.2	Encounter note	A narrative description of the encounter course.			Required	11	Υ		
A.2.3.3	Admission			Core	Required				



			1.17 . 2						
A.2.3.3.1	Admission urgency	Admission type, either emergency or planned	hl7:v3- xEncounterAdmis sionUrgency	Core	Required	11	S	HL7	
A.2.3.3.2	Admission date	Admission date and time.	ISO 8601	Core	Required	11	Υ		
A.2.3.3.3	Admitting professional ID	The health professional identification number. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID such as the licence or registration number.			Required	11	Υ		
A.2.3.3.4	Admitting professional name	Person name [the structure of the name will be the same as for the patient (given name, family name / surname)].			Required	11	Y		
A.2.3.3.5	Admitting organisation ID	The healthcare provider organisation identifier.			Required	11	Υ		
A.2.3.3.6	Admitting organisation	The healthcare provider organisation information.		Core	Required	11	Υ		
A.2.3.3.7	Admit Source	From where the patient was admitted (e.g. physician referral, transfer).	HI7:admit-source		Required	11	S	HL7	
A.2.3.3.8	Referring professional ID	The health professional identification number. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID such as the licence or registration number.			Required	11	Υ		
A.2.3.3.9	Referring professional name	Person name [the structure of the name will be the same as for the patient (given name, family name / surname)].			Required	11	Y		
A.2.3.3.10	Referring organisation ID	The healthcare provider organisation identifier.			Required	11	Υ		
A.2.3.3.11	Referring organisation	The healthcare provider organisation information.			Required	11	Υ		
A.2.3.4	Admission reason			Core	Required				
A.2.3.4.1	Admission reason	Reason or reasons for admission, e.g. Problem, procedure or finding.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed	Core	Required	1*	S	ICD-10	
A.2.3.4.2	Admission reason comment	Explanation of the reason for the encounter.		Core	Required	11	Υ		
A.2.3.4.3	Admission legal status	Legal status/situation at admission. The legal status indicates the basis on which	SNOMED CT		Optional	01	S	Snomed CT	



		1				I			
		the patient is staying in a healthcare							
		organisation. This can be either voluntary							
		or involuntary, however the legal status is							
		always determined by a court. A patient							
		can also receive healthcare based on a							
		forensic status. (voluntary, involuntary,							
		admission by legal authority).							
A.2.3.5	Discharge			Core	Required				
A.2.3.5.1	Discharge date	Discharge date and time	ISO 8601	Core	Required	11	Υ		
		Type of location to which the patient will							
A.2.3.5.2	Discharge destination	go after the encounter. E.g. home,	hl7.discharge-	Core	Required	11	s	HL7	
A.2.3.3.2	type	hospital, nursing home, left against	disposition	Core	Required	11	3	nL/	
		medical advice etc.							
		The location/organisation to which the							
A.2.3.5.3	Destination location	patient will go after the encounter. Name,		Core	Required	11	Υ		
		address and telecommunication contact.			·				
A.2.3.6	Location - All locations	departments where the patient stayed (was	boarded) within	Core	Required				
A.2.3.0	the hospital.			Core	Required				
A.2.3.6.1	Period	Time period during which the patient was		Coro	Required	11	γ		
A.2.3.0.1	Period	present at the location		Core	Required	11	Ţ		
A.2.3.6.2	Organisation Part ID	The organisation's part identifier.			Required	11	Υ		
A.2.3.6.3	Organisation Part	Full name of the organisation part, e.g.		Core	Required	11	Y		
A.2.3.0.3	Name	Name of the department		Core	Required	11	Ť		
A.2.3.6.4	Organisation Part	Address, contact names and contact	SNOMED CT	Coro	Doguirod	11	S	Snomed CT	
A.2.3.6.4	Details	details, specialty of the organisation part.	SNOWED CT	Core	Required	11	3	Snomed C1	
A.2.4	Admission evaluation -	Admission status should be reported excepti	onally only if it is		Required				
A.2.4	relevant to ensure cont	tinuity of care.			Required				
A.2.4.1	Objective findings				Required				
A.2.4.1.1	Date and time	Date and time of the examination	ISO 8601		Optional	01	Υ		
		Observation of Body weight and height of th	e patient, BMI,						
		circumference of head, waist, hip, limbs and	skin fold						
42442	Anthropometric	thickness.			0				
A.2.4.1.3	observations	Result of the observation includes text, num	eric and coded		Optional				
		results of the measurement including measurement	rement units.						
		Multiple observations could be provided.							
		Observation details include code that	SNOMED CT						
		identifies observation, specification of the	LOINC						
		observed body structure or specimen, date							
A.2.4.1.3.1	Observation details	and time of the specimen collection,			Optional	01	S	Snomed CT	
		observation method or protocol used and	ISO 8601						
		other aspects of the observation							
		other aspects of the observation.							



A.2.4.1.3.2	Observation result	Result of the observation including numeric and coded results of the measurement, details about how the tests were done to get the result values, information about reference ranges and result interpretation. Content of the observation result will vary according to the type of the observation.	UCUM (for units of measurement)	Optional	01	Y		
A.2.4.1.4	Vital signs	Vital signs observation: Recommended: Pulse rate, respiratory rate diastolic blood pressure with site information Optional: 02 saturation, temperature, pain	n	Optional				
A.2.4.1.4.1	Result description	Narrative representation of the observation result and findings.		Optional	01	Υ		
A.2.4.1.4.2	Observation details	Observation details include code that identifies observation, specification of the observed body structure or specimen, date and time of the specimen collection, observation method or protocol used and other aspects of the observation.	SNOMED CT LOINC ISO 8601	Optional	01	S	Snomed CT	
A.2.4.1.4.3	Observation result	Result of the observation including numeric and coded results of the measurement, details about how the tests were done to get the result values, information about reference ranges and result interpretation. Content of the observation result will vary according to the type of the observation.	UCUM (measurement units)	Optional	01	s	HL7 FHIR Resources	
A.2.4.1.5	Physical examination	Physical examination is the process of evaluating objective anatomical findings. It is typically the first diagnostic measure performed after taking the patient's history, which allows an initial assessment of symptoms and is useful for determining the differential diagnoses and further steps. Physical examination can be performed through observation, palpation, percussion, and auscultation.		Required				
A.2.4.1.5.1	Observation Note	A narrative description of the observation. It should be structured by the organ system (e.g. head, neck, body, arms,)		Required	11	Υ		
A.2.4.2	Functional status			Optional				



	person's abilities to peri care such as bathing, fer (IADL), which includes a affairs.	e assessed in several different ways, usually w form basic activities of daily living (ADL), whic eding, and toileting and instrumental activitie ctivities such as cooking, shopping, and mana	h include basic self- s of daily living					
	For details see: https://p	paciowg.github.io/functional-status-ig/						
A.2.4.2.1	Description	Need for the patient to be continuously assessed by third parties; functional status may influence decisions about how to plan and administer treatments		Optional	01	Y		
A.2.4.2.2	Onset Date	Onset date of a condition	ISO 8601	Optional	01	Υ		
A.2.4.2.3	Functional assessment description	Description of the functional assessment	ICF	Optional	01	Y		
A.2.4.2.4	Functional assessment date	Date of the functional assessment	ISO 8601	Optional	01	Y		
A.2.4.2.5	Functional assessment result	Functional assessment result value	ICF	Optional	01	Υ		
A.2.6	Patient history (might i	nclude information about provenance of the	information)	Required				
A.2.6.1	Medical history			Required				
A.2.6.1.1	History of problems	A list of conditions of a patient that the patie past or still suffers. Unlike diagnostic summa is not only a list of problems, but could cont description of the condition and its progress treatment including medication and patient treatment. Past problem section (unlike the the patient summary) should include only comportant for continuity of care. This section complements the diagnostic summary section report.	ary, medical history ain broader , details about response to same section of onditions that are n, if provided,	Optional				
A.2.6.1.1.1	Problem description	Problem specification		Optional	01	Υ		
A.2.6.1.1.2	Problem details	Problem details include code that identifies problem, specification of the body structure, laterality, and other aspects of the problem.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed IPS Absent and Unknown Data ICD-O-3	Optional	01	S	ICD10	
A.2.6.1.1.3	Onset date	Onset date of the problem/condition	ISO 8601	Optional	01	S	HL7 FHIR Resources	
A.2.6.1.1.4	End date	The date or estimated date that the condition resolved or went into remission.	ISO 8601	Optional	01	S	HL7 FHIR Resources	



		Tax a file to the first					1	
A.2.6.1.1.5	Clinical status	Status of the condition/problem (active,	hl7:condition-	Optional	01	S	HL7 FHIR	
		resolved, inactive,)	clinical	- p		-	Resources	
A.2.6.1.1.6	Resolution circumstances	Describes the reason for which the status of the problem changed from current to inactive (e.g. surgical procedure, medical treatment, etc.). This field includes "free text" if the resolution circumstances are not already included in other fields such as surgical procedure, medical device, etc., e.g. hepatic cystectomy (this will be the resolution circumstances for the problem "hepatic cyst" and will be included in surgical procedures).		Optional	01	S	HL7 FHIR Resources	
A.2.6.1.1.7	Severity	A subjective assessment of the severity of the condition as evaluated by the clinician.	SNOMED CT	Optional	01	S	HL7 FHIR Resources	
A.2.6.1.1.8	Stage	Stage/grade, usually assessed formally using a specific staging/grading system.	e.g. TNM, ICD-O-	Optional	01	S	HL7 FHIR Resources	
A.2.6.1.2	Devices and Implants	Devices and Implants		Optional				
A.2.6.1.2.1	Device and implant description	Describes the patient's implanted and external medical devices and equipment upon which their health status depends. Includes devices such as cardiac pacemakers, implantable fibrillator, prosthesis, ferromagnetic bone implants, etc. of which the HP needs to be aware.	SNOMED CT EMDN IPS Absent and Unknown Data	Optional	01	S	HL7 FHIR Resources	
A.2.6.1.2.2	Device ID	Normalised identifier of the device instance such as UDI according to REGULATION (EU) 2017/745		Optional	01	S	HL7 FHIR Resources	
A.2.6.1.2.3	Implant date	The date and time the device was implanted or when its use began.	ISO 8601	Optional	01	S	HL7 FHIR Resources	
A.2.6.1.2.4	End date	Date and time when the device was explanted from the patient or the external device was no longer in use; likewise when the device is planned to be explanted	ISO 8601	Optional	01	S	HL7 FHIR Resources	
A.2.6.1.2.5	Reason	The medical reason for use of the medical device.	ICD-10 SNOMED CT Orphacode if rare disease is diagnosed	Optional	01	S	ICD 10	
A.2.6.1.3	History of procedures	Historical procedures performed on or for a patient, relevant for the current encounter.		Optional				



Examples include surgical procedures, addit day care services, addit day care services, etc. SNOMED CT LOINC, PRU (for laboratory procedure) Procedure code Procedure code SNOMED CT LOINC, PRU (for laboratory procedures) Procedure code Procedur									•	
A 2.6.1.3.1 Procedure code Procedure description of the procedure ISABoett and Unknown Data A 2.6.1.3.2 Body site Procedure description of the procedure Date and time when procedure was performed. This may be a coded entity or any simply be present as text. The coded reason why the procedure was performed. This may be a coded entity or any simply be present as text. The coded reason why the procedure was performed. The may be a coded entity or any simply be present as text. The coded reason why the procedure was performed. The may be a coded entity or any simply be present as text. The coded reason why the procedure was performed. The may be a coded entity or any simply be present as text. The coded reason why the procedure was performed. The may be a coded entity or any simply be repeated as text. The coded reason why the procedure was performed. The may be a coded entity or any simply be repeated as text. The coded reason why the procedure was performed. The may be a coded entity or any simply be repeated as text. The coded reason why the procedure was performed. The may be a coded entity or any simply be repeated as text. The coded reason why the procedure was performed. The may be a coded entity or any simply be repeated as text. The coded reason why the procedure was performed. The may be a coded entity or any simply be repeated as the procedure. The coded reason why the procedure was performed. The procedure was performed. The may be a coded entity or any simply be repeated as text. The coded reason why the procedure was performed. The procedure was performed. The procedure was performed. The coded reason why the procedure was performed. The coded reason why the procedure was performed. The coded reason why the procedu										
A.2.6.1.3.1 Procedure code Procedure description of the procedure Procedure code Procedure description of the procedure A.2.6.1.3.3 Body site Procedure date Procedure description of the procedure was performed. CD-10^+										
A2.6.1.3.1 Procedure code Procedure description of the procedure was performed. Its may be a code dentity or professor bing performed. This may be a code dentity or professor bing performed. Procedure code consists implanted, removed or otherwise manipulated (alibration, battery replacement, fitting a prothesis, attaching a woundwar, etc.) as a facial potion of the procedure. A 2.6.1.3.1 Decade reason with the patient. A2.6.1.3.2 Pocal device Procedure reason or the device or devices that is implanted, removed or otherwise manipulated (alibration, battery replacement, fitting a prothesis, attaching a woundwar, etc.) as facial potion of the procedure. Some manipulated (alibration, battery replacement, fitting a prothesis, attaching a woundwar, etc.) as facial potion of the procedure. A2.6.1.4.1 Disease or agent by a control of the procedure was performed. The patient. A2.6.1.4.2 Vaccination A2.6.1.4.2 Vaccination A2.6.1.4.3 Disease or agent provides protection against the vaccination provides protection against the vaccination of the wascing/prophylaxis or its component(s) APOR SMS) A2.6.1.4.4 Vaccine medicinal product name A2.6.1.4.5 Vaccine medicinal product name A2.6.1.4.4 Vaccine medicinal product name A2.6.1.4.4 Vaccine medicinal product name A2.6.1.6.4 Vaccine medicinal product name A2.6.1.7 Vaccine medicinal product name A2.6.1.8 Vaccine medicinal product name A2.6.1.9 Vaccine medicinal product name A2.6.1.9 Vaccine medicinal product name A2.6.1.9 Vaccine medicinal product name A2.6.1.1 V										
A.2.6.1.3.1 Procedure code Procedure description A.2.6.1.3.2 Procedure description A.2.6.1.3.3 Body site Procedure target body site and laterality A.2.6.1.3.4 Procedure date A.2.6.1.3.5 Procedure date The coded reason why the procedure was performed. This may be a coded entity or may simply be present as text. The outcome of the procedure date dispanced with the procedure was performed. This may be a coded entity or may simply be present as text. A.2.6.1.3.6 Outcome The outcome of the procedure date implanted, removed or chewise manipulated (calibration, battery explacement, lifting a prostness), statching a wound-vac, etc.] as a focal portion of the Procedure. A.2.6.1.4.1 Disease or agent in this way be a road protection against manipulated (calibration, battery explacement, lifting a prostness), statching a wound-vac, etc.] as a focal portion of the Procedure. A.2.6.1.4.2 Vaccination A.2.6.1.4.4 Vaccination A.2.6.1.4 Vac										
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Authorisation Holder manufacturer (Identifier and name) Organisations Optional Out I	A 2 6 1 4 E	Marketing	Marketing Authorisation Holder or	EMA's	Ont	ional	0 1	v		
	A.Z.0.1.4.5	Authorisation Holder	manufacturer (Identifier and name)	Organisations	Орг	IUIIdi	01	'		



			Management					
			Service (EMA SPOR OMS)					
A.2.6.1.4.6	Number in a series of	Order in the vaccination course.	SPOR OWS)	Optional	01	Υ		
	vaccinations / doses							
A.2.6.1.4.7	Date of vaccination	The date and time when the vaccination was administered	ISO 8601	Optional	01	Υ		
A.2.6.1.4.8	Next vaccination date	The date when the vaccination is planned to be given/repeated (e.g. next dose)	ISO 8601	Optional	01	Υ		
A.2.6.1.5	Epidemiological history	Travel history and infectious contacts		Optional				
A.2.6.1.5.1	Infectious contacts	Infectious contacts of the patient		Optional				
A.2.6.1.5.1.	Time period	A date and duration or date time interval of contact. Partial dates are allowed.	ISO 8601	Optional	01	S	ICD 10	
A.2.6.1.5.1.		Information about a suspected infectious	ICD-10* (chapter					
2	Infectious agent	agent or agents the person was exposed	1) SNOMED CT	Optional	01	S	Snomed CT	
		to. Proximity to the source/carrier of the	SNOMED CT					
		infectious agent during exposure.						
A.2.6.1.5.1.	Proximity	Proximity could be expressed by text, code	UCUM	Optional	01	S	Snomed CT	
3		(direct, indirect) or value specifying	(measurement units)	·				
		distance from the InfectiousAgentCarrier.	units)					
A.2.6.1.5.1.	Country	Country in which the person was	ISO 3166	Optional	01	Υ		
A.2.6.1.5.1.	,	potentially exposed to an infectious agent. A textual note with additional information		·				
5	Additional information	about infectious contact.		Optional	01	Υ		
A.2.6.1.5.2	Travel history	Travel history reported by the patient. Multiple records could be provided.		Optional				
A.2.6.1.5.2.		Start and end date or end date and						
1	Time period	duration of stay in a country. Partial dates are allowed.	ISO 8601	Optional	01	Y		
A.2.6.1.5.2.								
2	Country visited	A country visited by the patient.	ISO 3166	Optional	01	Υ		
A.2.6.1.5.2. 3	Comment	Relevant notes on the travel stay.		Optional	01	Υ		
_		Information about serious illnesses in close						
A.2.6.2	Family history	blood relatives with known or suspected		Optional				
	, ,	genetic potential or with possible impact on patient care.		•				
		The family relation between the related				_	HL7 FHIR	
A.2.6.2.1	Patient relationship	person and the patient.	hl7:v3-RoleCode	Optional	01	S	Resources	
A.2.6.2.2	Date of birth	Full or partial date of birth	ISO 8601	Optional	01	Υ		



A.2.6.2.3	Age or date of death	Age or date of the death of the family member.	ISO 8601		Optional	01	Y		
A.2.6.2.5	Condition	Medical problems this person suffers or suffered.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed		Optional	01	S	ICD 10	
A.2.6.2.6	Cause of death	Information about disease or condition that was the main cause of death.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed		Optional	01	S	ICD 10	
A.2.6.3	Social determinants of health	Information about social determinants of health.			Optional				
A.2.6.3.1	Participation in society	Participation in society details.		(Optional				
A.2.6.3.1.1	Work situation	Work Situation describes the extent to which and in what way the patient participates in the workforce. Work is meant in the broadest sense of the word: activities that contribute to the person themselves, their environment or society. This includes both paid and unpaid work.			Optional	01	Y		
A.2.6.3.1.2	Hobby	An activity the patient enjoys doing in their free time.			Optional	01	Υ		
A.2.6.3.1.3	Social network	A description of the patient's social network, such as family, neighbours and friends.			Optional	01	Y		
A.2.6.3.2	Education			(Optional				
A.2.6.3.2.1	Education level	Indication of the highest level of education achieved.	hl7:v3.EducationL evel	(Optional	01	S	HL7 FHIR Resources	
A.2.6.3.2.2	Comment	If deemed relevant, a specification of the degree program can be provided by means of an explanation (e.g.: patient is in medical school).			Optional	01	Y		
A.2.6.3.3	Living situation	Household type and other related living situation information.			Optional				
A.2.6.3.3.1	House type	Type of home the patient lives in.	SNOMED CT		Optional	01	S	Snomed CT	
A.2.6.3.3.2	Home adaption	Adaptions present in the home that have been made in the context of the illness or disability to make the functioning of the patient safer and more comfortable and to	SNOMED CT		Optional	01	S	Snomed CT	



		enable independent living. Multiple data						
		elements could be provided.						
		Conditions that affect the accessibility of						
A.2.6.3.3.3	Living conditions	the home or the stay in the home. Multiple	SNOMED CT	Optional	01	S	Snomed CT	
		data elements could be provided.						
	Family situation	Family situation details.		Optional				
A.2.6.3.4.1	Comment	A comment on the family situation.		Optional	01	N		
		The family composition describes the						
A.2.6.3.4.2	Family composition	patient's home situation and the form of	SNOMED CT	Optional	01	S	Snomed CT	
A.2.0.3.4.2	r anning composition	cohabitation.	SINOIVILD CT	Optional	01	3	3iloillea Ci	
		A family can consist of one or more people.						
		A person's marital status according to the	hl7: v3-				HL7 FHIR	
A.2.6.3.4.3	Marital status	terms and definition in the national civil	MaritalStatus	Optional	01	S	Resources	
		code.	iviai itaistatus				Resources	
		The number of children the patient has.						
A.2.6.3.4.4	Number of children	Children in the context of this information		Optional	01	Y		
A.2.0.3.4.4	Number of children	model include step children, foster		Optional	01	'		
		children, biological and adopted children.						
A.2.6.3.4.5	Number of children at	The number of children living at home with		Optional	01	Y		
A.2.0.3.4.3	home	the patient.		Optional	01	'		
A.2.6.3.4.6	Child details	Child age, co-living status and comment.		Optional	01	Y		
7.2.0.3.4.0	Crina actans	Multiple child details could be provided.		Optional	01	ı'		
A.2.6.3.4.7	Care responsibility	The activities the patient carries out to		Optional	01	Υ		
		care for a dependent family member.		Optional	01			
A.2.6.4	Use of substances			Optional				
		Alcohol consumption by the patient.						
A.2.6.4.1	Alcohol use	Multiple records on alcohol use could be		Optional				
		provided.						
A.2.6.4.1.1	Status	The status of the patient's alcohol use.	SNOMED CT	Optional	01	Υ		
		Period of use and amount (The extent of						
A.2.6.4.1.2	Period and quantity	the patient's alcohol use in units of alcohol		Optional	01	Υ		
		per time period.)						
A.2.6.4.1.3	Comment	Textual comment.		Optional	01	Υ		
		Represent smoking or tobacco habits.						
A.2.6.4.2	Tobacco use	Multiple records on tobacco use could be		Optional				
		provided.						
A.2.6.4.2.1	Status	The status of the patient's tobacco use.	SNOMED CT	Optional	01	S	SNOMED CT	
		Period of use and amount (The extent of						
A.2.6.4.2.2	Period and quantity	the patient's tobacco use in units of		Optional	01	Υ		
		alcohol per time period.)						
A.2.6.4.2.3	Comment	Textual comment.		Optional	01	Υ		



A.2.6.4.3	Drug consumption	Consumption of drugs and other substances (in terms of abuse).			Optional				
A.2.6.4.3.1	Status	The status of the patient's drug use.	SNOMED CT		Optional	01	S	SNOMED CT	
A.2.6.4.3.2	Period and quantity	Period of use and amount.	SINOIVILD CT		Optional	01	Y	SINOIVIED CI	
A.2.6.4.3.3	Drug or medication type	Type of the drug consumption	SNOMED CT		Optional	01	S	SNOMED CT	
A.2.6.4.3.4	Route of administration	Route or routes of administration	EDQM Standard Terms		Optional	01	Υ		
A.2.6.4.3.5	Comment	Textual comment			Optional	01	Υ		
A.2.7	Course of hospitalisation			Core	Required				
A.2.7.1	Diagnostic summary	All problems/diagnoses that affect care during the inpatient case or are important to be recorded to ensure continuity of care. The diagnostic summary differentiates, in accordance with the international recommendation, between problems treated during hospital stay and other (untreated) problems. Treated problems are problems that were the subject of diagnostics, therapy, nursing, or (continuous) monitoring during the hospitalisation. Furthermore problems could be divided into three categories: problems present on admission (POA), conditions acquired during hospital stay (HAC) and problems that cannot be classified as being of any of the two (N/A). The diagnostic summary contains all conditions as they were recognised at the end of hospitalisation, after all examinations. This section contains concise, well specified, codeable, summary of problems. Problems are ordered by importance (main problems first) during hospital stay. Description of the problem might be completed with additional details in the medical history section and/or in the Synthesis		Core	Required				
A.2.7.1.1	Problem description	Problem specification in narrative form		Core	Required	11	Υ		
A.2.7.1.2	Problem details	Problem details include code that identifies problem, specification of the body structure, laterality, and other aspects of the problem.	ICD-10* SNOMED CT ICD-O-3 Orphacode if rare disease is diagnosed IPS Absent and Unknown Data	Core	Required	11	S	ICD-10	
A.2.7.1.3	Onset date	Onset date of a problem/condition	ISO 8601	Core	Required	11	Υ		
A.2.7.1.4	End date	The date or estimated date that the condition resolved or went into remission.	ISO 8601		Optional	01	Υ		



		I								
		Category of the problem allows flagging for								
		conditions acquired during hospital stay.								
A.2.7.1.5	Category	- Present on admission [POA])		Core	Required	11	Υ			
		- Hospital acquired condition [HAC]								
		Not applicable or unknown								
		Class of the problem (treated, other) in								
		relation to the hospital encounter. Treated								
		problems were treated or affected								
		provisioning of care (diagnostics, therapy,								
A.2.7.1.6	Treatment class	nursing, monitoring) during the hospital	Treated, Other	Core	Required	11	Υ			
		encounter. At least one problem should be								
		marked as Treated. Other problems are								
		recorded only if they are important for								
		continuity of care (after discharge).								
A.2.7.1.7	Clinical status	Status of the condition/problem (active,	hl7:condition-		Ontional		S	HL7		
A.Z./.1./	Clinical Status	resolved, inactive,)	clinical		Optional		5	HL/		
		Describes the reason for which the status								_
		of the problem changed from current to								
		inactive (e.g. surgical procedure, medical								
		treatment, etc.). This field includes "free								
	Resolution	text" if the resolution circumstances are								
A.2.7.1.8		not already included in other fields such as			Optional	01	Υ			
	circumstances	surgical procedure, medical device, etc.,								
		e.g. hepatic cystectomy (this will be the								
		resolution circumstances for the problem								
		"hepatic cyst" and will be included in								
		surgical procedures).								
A.2.7.1.9	Severity	A subjective assessment of the severity of	hl7:condition-		Optional	01	Υ			
A.Z.7.1.3	Severity	the condition as evaluated by the clinician.	severity		Ориона	01				
		Stage/grade usually assessed formally	e.g. TNM						_	_
A 2 7 1 10	Stago	using a specific staging/grading system.			Ontional	01	S	TNM		
A.2.7.1.10	Stage	Multiple assessment systems could be	ICD O 3	1	Optional	01	3	TIVIVI		
		used.	ICD-0-3							
		Significant surgical and non-surgical								
		procedures performed during								
		hospitalisation which are significant for								
		continuity of care, e.g. surgeries and other								
A.2.7.2	Significant procedures	"instrumental" interventions (endoscopic,		Core	Required					
		intravascular), chemotherapy,								
		radiotherapy, purification methods								
		(dialysis, hemoperfusion), circulation								
		support methods (counterpulsation, etc.),								



		administration of blood derivatives or							
		others.							
		This section does not include purely							
		diagnostic procedures (MRI, CT, etc.). If no							
		significant performance has been							
		performed, this fact must be explicitly							
		stated using the IPS Absent and Unknown							
		Data.							
			SNOMED CT						
A.2.7.2.1	Procedure code	Procedure code	IPS Absent and	Core	Required	11	S	SNOMED CT	
			Unknown Data						
A.2.7.2.2	Procedure description	Narrative description of the procedure		Core	Required	11	Υ		
A.2.7.2.3	Body site	Procedure target body site and laterality	SNOMED CT		Optional	11	S	SNOMED CT	
A.2.7.2.4	Procedure date	Date and time when procedure was performed	ISO 8601	Core	Required	11	Υ		
		performed	ICD-10*						
		The coded reason why the procedure was	SNOMED CT						
A.2.7.2.5	Procedure reason	performed. This may be a coded entity or	Orphacode if rare		Required	11	Υ		
7 112.7 12.13		may simply be present as text.	disease is		qucu				
		,	diagnosed						
		The outcome of the procedure - did it	ulugiioseu						
A.2.7.2.6	Outcome	resolve the reasons for the procedure	SNOMED CT		Optional	11	S	SNOMED CT	
		being performed?							
		Any complications that occurred during the	ICD-10*						
		procedure, or in the immediate post-	SNOMED CT						
		performance period. These are generally							
A.2.7.2.7	Complication	tracked separately from the procedure	Orphacode if rare		Required	11	S	SNOMED CT	
		description, which will typically describe	disease is						
		the procedure itself rather than any 'post	diagnosed						
		procedure' issues.							
		A reference to the device or devices that							
		is/are implanted, removed, or otherwise							
A.2.7.2.8	Focal device	manipulated (calibration, battery		Core	Required	11	Y		
		replacement, fitting a prosthesis, attaching		30.0					
		a wound-vac, etc.) as a focal portion of the							
		Procedure.							
		Implants and used medical devices that							
		affected or may affect the provision of							
A.2.7.3	Medical devices and	health services (diagnosis and treatment).		Core	Required				
	implants	Also medical devices explanted, or its use		22.2	10				
		was stopped during hospitalisation. If the							
		section is blank, the reason must be							



		explicitly stated using the IPS Absent and							
		Unknown Data coding system							
		Describes the patient's implanted and	SNOMED CT						
		external medical devices and equipment	EMDN						
		upon which their health status depends.	EIVIDIN						
A.2.7.3.1	Device and implant	Includes devices such as cardiac		Core	Required	11	s	SNOMED CT	
A.2.7.3.1	description	pacemakers, implantable fibrillator,	IPS Absent and	COLE	Required	11		SINOIVIED CI	
		prosthesis, ferromagnetic bone implants,	Unknown Data						
		etc. of which the HP needs to be aware.							
		Normalised identifier of the device							
A.2.7.3.2	Device ID	instance such as UDI according to			Optional	01	Υ		
		REGULATION (EU) 2017/745							
A.2.7.3.3	Implant date	The date and time the device was	ISO 8601	Coro	Required	11	Υ		
A.Z.7.5.5	illipialit date	implanted or when its use began.	130 8001	Core	Required	11	T		
		Date and time when the device was							
A.2.7.3.4	End date	explanted from the patient or the external	ISO 8601	Core	Required	11	Υ		
		device was no longer in use; likewise when							
		the device is planned to be explanted	ICD-10*						
			SNOMED CT						
A.2.7.3.5	Reason	The medical reason for use of the medical	Orphacode if rare		Required	11	S	SNOMED CT	
A.2.7.3.3	Reason	device.	disease is		Required	11	3	SINOIVILD CT	
			diagnosed						
		Selected drug treatment during hospitalisation							
		products that were administered during hos							
		whose administration has already been disco	ontinued before						
		discharge. Only products which are importar	nt for continuity of						
		care (antibiotics other than completely routi	•						
A.2.7.5	Pharmacotherapy	in high doses, etc.) will be listed. Products w		Core	Required				
7.1.2.7.13	T narmacotnerapy	administration will continue after discharge		COIC					
		recorder in the Medication summary section							
		Medicinal products, the administration of wl							
		during hospitalisation, but is also recommen discharge, will be listed in the summary table							
		recommendation section.	e iii tiie						
			ICD-10*						
		The reason why the medication is or was	SNOMED CT						
A.2.7.5.1	Medication reason	prescribed or used. It provides a link to the Past or current health conditions or	Orphacode if rare		Required	11	S	SNOMED CT	
		problems that the patient has had or has.	disease is						
		problems that the patient has had of has.	diagnosed						
A.2.7.5.2	Code	Product code	IDMP	Core	Required	11	Υ		



		I							
		Indication intended use as: prevention or							
A.2.7.5.3	Intended use	treatment Example: prophylaxis,			Required	11	Υ		
		treatment, diagnostic, anaesthesia.							
		Brand name if biological medicinal product							
A.2.7.5.4	Brand name	or when justified by the health		Core	Required	11	Y		
A.2.7.3.4	Diana name	professional (ref. Commission Directive		Core	Required	11	'		
		2012/52/EU)							
		Substance that alone or in combination							
		with one or more other ingredients	ATC (IDMP / EMA						
A.2.7.5.5	Active ingredient list	produces the intended activity of a	SPOR SMS)		Required	11	Υ		
		medicinal product. Example:	SPOR SIVIS)						
		"paracetamol"							
		The content of the active ingredient	UCUM						
		expressed quantifiably per dosage unit, per							
A.2.7.5.6	Strength	unit of volume or per unit of weight,	EDQM Standard		Required	11	Υ		
		according to the pharmaceutical dose	terms						
		form. Example: 500 mg per tablet							
	Pharmaceutical dose	The form in which a pharmaceutical	EDQM Standard						
A.2.7.5.7	form	product is presented in the medicinal	Terms		Required	11	Υ		
	101111	product package (e.g. tablet, syrup)	1611113						
		Number of units per intake and frequency							
A.2.7.5.8	Dosage Regimen	of intake over a specified duration of time.			Required	11	Υ		
		Example: 1 tablet every 24h, for 10 days							
	Route of	Path by which the pharmaceutical product	EDQM Standard						
A.2.7.5.9	administration	is taken into or makes contact with the	Terms		Required	11	Υ		
	dammistration	body.	Terms						
A.2.7.5.10	Period of treatment	The time interval when the patient was, or		Core	Required	11	Y		
71.2.7.3.10	Teriod of treatment	was not, given the medication.		COIC	ricquired		'		
		Results of significant functional, diagnostic, a							
	Significant	examinations to ensure continuity of care, p							
A.2.7.6	Observation Results	hospitalisation. Results of examinations order	•		Required				
	Observation nesalts	delivered should be presented separately fro	om results already						
		delivered.							
A.2.7.6.1	Date	Date and time of the observation	ISO 8601	Core	Required	11	Υ		
A.2.7.6.2	Observation status	Status of the observation (e.g. registered,	hl7:observation-		Required	11	Y		
,	Observation status	preliminary, final)	status		nequired		,		
A.2.7.6.3	Result description	Narrative representation of the		Core	Required	11	Y		
		observation result and findings.		30.0	cquireu		,		
		Observation details include code that	LOINC						
A.2.7.6.4	Observation details	identifies observation, specification of the	NPU	Core	Required	11	s	SNOMED CT	
A.Z.7.0.4	Observation details	observed body structure or specimen, date	SNOMED CT	Core	Required	11	3	SINOIVILD CI	
		and time of the specimen collection,	ISO 8601						



		observation method or protocol used and							
		other aspects of the observation.							
		Result of the observation including	SNOMED CT						
		numeric and coded results of the							
		measurement, details about how the tests							
A.2.7.6.5	Observation result	were done to get the result values,	UCUM	Core	Required	11	S	SNOMED CT	
72.7.10.15		information about reference ranges and	(measurement	00.0	qucu			0.1011.25 0.	
		result interpretation. Content of the	units)						
		observation result will vary according to							
		the type of the observation.							
		With certain observation results, e.g. there							
A.2.7.6.7	Reporter	may also be an interpreter or a person			Optional	01	Υ		
		responsible for validation.							
		This section provides clinical synthesis (e.g. o							
		reasons and course of hospital stay) clustere							
A.2.7.7	Synthesis	conditions, Clinical synthesis may include clin		Core	Required				
		(differential diagnostics, explanation of clinic	cal context) in						
		clinically complex conditions.							
		Summary description of the reason and							
A.2.7.7.1	Problem synthesis	course of hospitalisation for a specific		Core	Required	11	Υ		
		problem.							
		The clinical summary can be concluded							
A.2.7.7.2	Clinical reasoning	with a clinical consideration (diff.			Required	11	Υ		
7.1.2.7.7.12	- Cilinour reasoning	diagnosis, explanation of context, etc.) for			qucu				
		clinically complex conditions.							
A.2.8	,	ctured information should be provided, howe	ver if not	Core	Required				
		nmary note should be present).			•				
A.2.8.1	Objective findings			Core	Required				
A.2.8.1.1	Date	Date and time of the examination at or	ISO 8601		Optional	01	Υ		
71.2.0.1.1	Date	before discharge			Optional	01	'		
		Observation of Body weight and height of th							
		circumference of head, waist, hip, limbs and	skin fold						
A.2.8.1.3	Anthropometric	thickness.		Core	Required				
7112101213	observations	Result of the observation includes text, num		00.0	nequired				
		results of the measurement including measurement	rement units.						
		Multiple observations could be provided.							
A.2.8.1.3.1	Result description	Narrative representation of the			Optional	01	Υ		
		observation result and findings.			- p				
		Observation details include code that	SNOMED CT						
A.2.8.1.3.2	Observation details	identifies observation, specification of the	LOINC	Core	Required	11	Υ		
		observed body structure or specimen, date	ISO 8601	55.0					
		and time of the specimen collection,	.00001						



							I		
		observation method or protocol used and							
		other aspects of the observation.							
		Result of the observation including numeric and coded results of the measurement, details about how the tests were done to get the result values,	UCUM						
A.2.8.1.3.3	Observation result	information about reference ranges and	(measurement units)	Core	Required	11	Y		
		Observation of Vital signs:							
A.2.8.1.4	Vital signs	Recommended: systolic and diastolic blood including site of measurement, pulse rate, res		Core	Required				
		Optional: 02 saturation, temperature, pain (
		Narrative representation of the	Journal of the state of the sta						
A.2.8.1.4.1	Result description	observation result and findings.			Optional	01	Υ		
			SNOMED CT						
			LOINC						
A.2.8.1.4.2	Observation details	observed body structure or specimen, date		Core	Required	11	S	LOINC	
		and time of the specimen collection,	ISO 8601						
		observation method or protocol used and							
		other aspects of the observation.							
A.2.8.1.4.3	Observation result	information about reference ranges and result interpretation. Content of the observation result will vary according to the type of the observation.	UCUM (measurement units)	Core	Required	11	Υ		
A.2.8.1.5	Physical examination	Physical examination (at discharge) is the procobjective anatomical findings. Physical examination performed through observation, palpation, palauscultation.	nation can be	Core	Required				
		A narrative description of the observation.							
A.2.8.1.5.1	Observation Note	It should be structured by the organ system (e.g. head, neck, body, arms,)		Core	Required	11	Y		
A.2.8.2	Functional status	Functional status can be assessed in several d usually with a focus on the person's abilities to activities of daily living (ADL), which include by as bathing, feeding, and toileting and instrum	o perform basic asic self-care such	Core	Required				



	1 1 11 11 11 11 11 11 11 11 11 11 11 11								
		uch as cooking,							
	11 6								
		nctional-status-ig/							
Description	Need for the patient to be continuously assessed by third parties; functional status may influence decisions about how to plan and administer treatments		Core	Required	11	Υ			
Onset Date	Onset date of a condition	ISO 8601		Optional	01	Υ			
Functional assessment description	Description of the functional assessment	e.g. ICF		Optional	01	Υ			
Functional assessment date	Date of the functional assessment	ISO 8601		Optional	01	Υ			
Functional assessment result	Functional assessment result value	e.g. ICF		Optional	01	Υ			
Discharge note	Discharge summary note			Optional	01	Υ			
Care plan and other rec	ommendations after discharge.		Core	Required					
Care plan	Care plan after discharge. Multiple care plan provided.	s could be	Core	Required					
Title	Human-friendly name for the care plan (e.g. Hip replacement care plan)			Optional	01	Υ			
Addresses	Identifies the conditions/problems/concerns/diagnoses/ etc. whose management and/or mitigation are handled by this plan. This element provides a linkage to the conditions recorded in the diagnostic summary section.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed		Optional	01	Y			
Description	A description of the scope and nature of the plan.		Core	Required	11	Υ			
Plan Period	Indicates when the plan did (or is intended to) come into effect and end.			Optional	01	Υ			
Other details	Other structured and coded details, care team, goals to be achieved.			Optional	01	Υ			
Activity	Actions to occur as part of the plan.			Optional					
Kind	A description of the type of care plan activity. For example, a	hl7:resource-		Optional	01	s	HL7		
	Functional assessment description Functional assessment date Functional assessment result Discharge note Care plan and other rec Care plan Title Addresses Description Plan Period Other details	shopping, and managing one's own affairs. For details see: https://paciowg.github.io/fu Need for the patient to be continuously assessed by third parties; functional status may influence decisions about how to plan and administer treatments Onset Date Onset date of a condition Functional assessment description Description of the functional assessment Functional assessment result Discharge note Care plan and other recommendations after discharge. Care plan Title Care plan and other recommendations after discharge. Human-friendly name for the care plan (e.g. Hip replacement care plan) Identifies the conditions/problems/concerns/diagnoses/ etc. whose management and/or mitigation are handled by this plan. This element provides a linkage to the conditions recorded in the diagnostic summary section. Description Plan Period Other details Activity Actions to occur as part of the plan. Kind Need for the patient to be continuously assessed by third partient; functional status may influence decisions about how to plan fassessment and administer treatments possessment of the functional assessment and administer treatments Description of the functional assessment Functional assessment Functional assessment Functional assessment Functional assessment Functional assessment Functional assessment Functional assessment feature and and inserting assessment Functional assessment functional assessment Functional assessment feature and and inserting assessment Functional assessment function	Description Need for the patient to be continuously assessed by third parties; functional status may influence decisions about how to plan and administer treatments	shopping, and managing one's own affairs. For details see: https://paclowg.github.lo/functional-status-ig/. Need for the patient to be continuously assessed by third parties; functional status may influence decisions about how to plan and administer treatments Onset Date Onset date of a condition Functional assessment description Description of the functional assessment Functional assessment date Functional assessment functional assessment Functional assessment functional assessment Functional assessment functional assessment Functional assessment functional assessment Functiona	shopping, and managing one's own affairs. For details see: https://paclowg.gthub.io/functional-status-ig/ Need for the patient to be continuously assessed by third parties; functional status may influence decisions about how to plan and administer treatments Onset Date Onset Date Onset date of a condition Iso 8601 Optional Functional assessment description Functional assessment date Functional assessment Date of the functional assessment Iso 8601 Optional Functional assessment Functional assessment Functional assessment Date of the functional assessment Iso 8601 Optional Functional assessment Functional	Shopping, and managing one's own affairs. For details see: https://paclowg.github.io/functional-status-ig/ Need for the patient to be continuously assessed by third parties; functional status may influence decisions about how to plan and administer treatments	Shopping, and managing one's own affairs. For details see: https://paciowrg.glthub.lo/functional-status-ip/ Need for the patient to be continuously assessed by third parties; functional status may influence decisions about how to plan and administer treatments Doset date of a condition ISO 8601 Optional O1 Y	Shopping, and managing one's own affairs. For details see: https://paclows.github.io/functional-status-ip/.	shopping, and managing one's own affairs. For details see: https://accioneg.github.jo/functional-status-ig/ Need for the patient to be continuously assessed by third parties; functional status may influence decisions about how to plan and administer treatments Onset Date Onset Date Onset date of a condition Description of the functional assessment description Date of the functional assessment result value e.g. ICF Optional Ontional Optional O.1 Y Discharge note Discharge summary note Care plan and other recommendations after discharge. Care plan and other recommendations after discharge. Care plan and other recommendations after discharge. Care plan identifies the conditions/problems/concerns/diagnoss/ ect. whose management and/or mitigation are handled by this plan. This element provides a linkage to the conditions recorded in the diagnostic summary section. Description Addresses Ad



		I							
		MedicationRequest, a ServiceRequest, or a							
		CommunicationRequest.							
A.2.9.1.6.2	Activity description	A detailed description of the activity.			Optional	01	Υ		
		Specific structured attributes per each							
A.2.9.1.6.3	Specific attributes	activity type expressed by the Activity kind			Optional	01	Υ		
	.,	element, E.g., specific attributes for							
		prescription request, appointment, etc.							
		Summary information on the medication rec							
		period after discharge, indicating whether th		_					
A.2.9.2	Medication summary	changed or newly started. Compared to prev		Core	Required				
		overview is supplemented with medication t	hat has been						
		discontinued.							
		The reason why the medication is or was	ICD-10*						
		prescribed or used. It provides a link to the	SNOMED CT						
A.2.9.2.1	Medication reason	Past or current health condition(s) or	Orphacode if rare	Core	Required	11	Υ		
7 112131212	····carcation reason	problem(s) that the patient has had or has	disease is	00.0					
		and for which this medication was	diagnosed						
		prescribed.							
			hl7:reason-						
A.2.9.2.2	Reason for change	Reason for change of medication	medication-	Core	Required	11	Υ		
			status-codes						
A.2.9.2.3	Code	Product code.	IDMP	Core	Required	11	Υ		
		Brand name if biological medicinal product							
A.2.9.2.4	Brand name	or when justified by the health		Core	Required	11	Υ		
		professional (ref. Commission Directive		50.0					
		2012/52/EU)							
		Substance that alone or in combination							
		with one or more other ingredients	ATC (IDMP / EMA						
A.2.9.2.5	Active ingredient list	produces the intended activity of a	SPOR SMS)	Core	Required	11	Υ		
		medicinal product. Example:	1. 1. 5						
		"paracetamol"							
		The content of the active ingredient	UCUM						
		expressed quantifiably per dosage unit, per							
A.2.9.2.6	Strength	unit of volume or per unit of weight,	EDQM Standard	Core	Required	11	Υ		
		according to the pharmaceutical dose	terms						
		form. Example: 500 mg per tablet							
	Pharmaceutical dose	The form in which a pharmaceutical	EDQM Standard						
A.2.9.2.7	form	product is presented in the medicinal	terms	Core	Required	11	Υ		
		product package (e.g. tablet, syrup)							
		Number of units per intake and frequency		_				 	
A.2.9.2.8	Dosage Regimen	Number of units per intake and frequency of intake over a specified duration of time. Example: 1 tablet every 24h, for 10 days		Core	Required	11	Υ		



	•							ı	
A.2.9.2.9	Route of administration	Path by which the pharmaceutical product is taken into or makes contact with the body.	EDQM Standard terms	Core	Required	11	Y		
A.2.9.2.10	Period of treatment	The interval of time during which it is being asserted that the patient is/was/will be taking the medication (or was not taking).		Core	Required	11	Υ		
A.2.9.2.11	Days supplied	Number of days for which the patient was provided with the drug. Supply is intended to either hand over the medicine or write out a prescription. A 0 value indicates that the patient has not been provided with the drug (e.g. if the patient has a sufficient supply of the drug)	ИСИМ	Core	Required	11	Υ		
A.2.9.3	Other recommendations	Other recommendations (advice) after discharge. Multiple recommendations could be provided. E.g., recommendation to suggest hip replacement, reduce number of cigarettes, stop smoking, increase physical exercises, etc.		Core	Required	11	Y		
Other requir	red data fields that are no	ot present in these guidelines.							
A.2.3.5.x	Hospitalization outcome	Patient' discharge condition.		Core	Required	11	S		



Annex V – X-Bubble 4 e 5 eHN guidelines analysis

					0	rganisatio		uthority to Organisation		TEKNY
			Preferred Code		Required		Hav	e this information avail	able?	
#	Field	Field description	System	Core	Optional	Cardi	(Y)es			Comments
					Not	nality	N(o)	Code System	Value Sets	Comments
					required		(S)tructured			
	DISCHARGE REPORT HE	ADER								
A.1		eport header data element								
A.1.1	Identification of the				Required					
A.1.1.1	Given name	The given name/first name of the patient (also known as forename or first name). This field can contain more than one element.			Required		Y			String
A.1.1.2	Family name/surname	The family name/surname/last name of the patient. This field can contain more than one element or multiple fields could be present.			Required		Y			String
A.1.1.3	Date of birth	Complete date, following the ISO 8601.	ISO 8601		Required		S	ISO 8601		At least one IT Company
A.1.1.4	National healthcare patient ID	An identifier of the patient that is unique within a defined scope. Example: National ID (birth number) for a Czech patient. Multiple identifiers could be provided			Required		S			Number
A.1.1.5	Nationality	Nationality of the patient.	ISO 3166		Required		S	ISO 3166		At least one IT Company
A.1.1.6	Gender	This field must contain a recognised valid value for "administrative gender". If different, "physiological gender" should be communicated elsewhere in the relevant clinical information section.	HL7 Administrative Gender		Required		S	HL7 Administrative Gender		
A.1.1.7	Country of affiliation	Name of country of affiliation	ISO 3166		Required		S	ISSO 3166		At least one IT Company
A.1.2		ed contact information								
A.1.2.1	Patient address				Optional					
A.1.2.1.1	Address	Mailing and home or office addresses. The addresses are always sequences of address parts (e.g.	ISO 3166		Optional		NA			



		street address line, country,					
		postcode, city) even if postal address					
		formats may vary depending on the					
		country. An address may or may not					
		include a specific use code; if this					
		attribute is not present it is assumed					
		to be the default address useful for					
		any purpose.					
		Telecommunication contact					
		information (addresses) associated					
A.1.2.1.2	Telecom	with a person, such as phone		Optional	NA		
A.1.2.1.2	Telecom	number, email, or messaging service.		Optional	IVA		
		Multiple telecommunication					
		addresses might be provided.					
	Preferred health pro	fessional (HP) - This section can be repea	ted and linked to any				
A.1.2.2	specific information	in the document, for example a link betw	een a rare disease	Optional			
A.1.2.2	problem and the rare	e disease specialist responsible for the ca	re of the individual	Optional			
	patient (this section)	•					
		An identifier of the health					
		professional that is unique within a					
A.1.2.2.1	Identifier of the HP	defined scope. Example: National		Optional	NA		
		health professional ID. Multiple					
		identifiers could be provided.					
		Name of the health professional that					
		has been treating or taking					
A.1.2.2.2	Name of the HP	responsibility for the patient.[the		Optional	NA		
A.1.2.2.2	Name of the nP	structure of the name will be the		Optional	INA		
		same as for the patient (given name,					
		family name / surname)]					
A 1 2 2 2	Dala af the UD	Health professional role. Multiple	ICCO	Ontinual	NIA		
A.1.2.2.3	Role of the HP	roles could be provided.	ISCO	Optional	NA		
A.1.2.2.4	HP Organisation	Health professional organisation		Optional	NA		
		Mailing and home or office					
		addresses. The addresses are always					
		sequences of address parts (e.g.					
		street address line, country,					
		postcode, city) even if postal address					
A.1.2.2.5	Address	formats may vary depending on the	ISO 3166	Optional	NA		
		country. An address may or may not					
		include a specific use code; if this					
		attribute is not present it is assumed					
		to be the default address useful for					
		any purpose.					
		. / I . I/					



A.1.2.3.8 A.1.3	Contact person organisation Health insurance and	Contact person organisation information. payment information - Health insurance	e information is not	Optional Required	NA		
A.1.2.3.8	•	Contact person organisation		Optional	NA		
		v .					
A.1.2.3.7	Telecom	Telecommunication contact information (addresses) associated with a person, such as phone number, email, or messaging service. Multiple telecommunication addresses might be provided.		Required	Y		At least one IT Company
A.1.2.3.6	Address	Mailing, home or office addresses. The addresses are always sequences of address parts (e.g. street address line, country, postcode, city) even if postal address formats may vary depending on the country. An address may or may not include a specific use code; if this attribute is not present it is assumed to be the default address useful for any purpose.	ISO 3166	Required	S	ISO 3166	At least one IT Company
A.1.2.3.5	Family name/surname	Family name of the contact person. This field can contain more than one element [the structure of the name will be the same as for the patient (given name, family name / surname)]		Required	Υ		At least one IT Company
A.1.2.3.4	Given name	Given name of the contact person/guardian . This field can contain more than one element.		Required	Y		At least one IT Company
A.1.2.3.2	Relationship level	Relationship type with the patient (e.g. father, wife, daughter)	HL7 RoleCode SNOMED CT	Required	S	HL7 RoleCode	At least one IT Company
A.1.2.3.1	Role of that person	Role of the contact person: legal guardian, next of kin, other person to contact.	HL7 RoleClass	Required	S	HL7 RoleClass	At least one IT Company
A.1.2.3	Contact person/ lega	l guardian (multiple contacts could be pr	ovided)	Required			
A.1.2.2.6	Telecom	Telecommunication contact information (addresses) associated with a person, such as phone number, email, or messaging service. Multiple telecommunication addresses might be provided.		Optional	NA		



	as the patient identi	fier. It is necessary not just for identification but also forms			
	access to funding for				
A.1.3.1	Health insurance code	Unique health insurance company identification code.	Required	S	String or Number
A.1.3.2	Health insurance name	Full, official name of the healthcare insurance provider.	Required	Y	String
A.1.3.3	Health insurance number	Number or code under which the insured person is registered at the insurance provider.	Required	S	String
A.1.4	Information recipien	t - (intended recipient or recipients of the report), if applica	ble Optional		
A.1.4.1	Recipient identifier	The health professional or patient identifier. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID such as the licence or registration number. In case when the recipient is not a health professional, e.g. patient, appropriate personal identifier could be used.	Optional	NA	
A.1.4.2	Recipient name	Person name [the structure of the name will be the same as for the patient (given name, family name / surname)].	Optional	NA	
A.1.4.3	Recipient organisation ID	The healthcare provider organisation identifier. Identifier that is unique within a defined scope. Example: National healthcare provider ID. Multiple identifiers could be provided.	Optional	NA	
A.1.4.4	Recipient organisation	The healthcare provider organisation information.	Optional	NA	
A.1.4.5	Address	Mailing and home or office addresses. The addresses are always sequences of address parts (e.g. street address line, country, postcode, city) even if postal address formats may vary depending on the country. An address may or may not include a specific use code; if this attribute is not present it is assumed	Optional	NA	



		to be the default address useful far						
		to be the default address useful for						
		any purpose.						
A.1.4.6	Country	Country of the intended recipient as part of the address.	ISO 3166	Optiona	I	NA		
		Telecommunication contact						
		information (addresses) associated to						
		a person, such as phone number,						
A.1.4.7	Telecom	email, or messaging service. Multiple		Optiona	ı	NA		
		telecommunication addresses might						
		be provided.						
	Author (by whom the	e Hospital discharge report was/were au	thored). Multiple					
A.1.5	authors could be pro	vided.	,	Require	d			
		The health professional identifier						
		that will allow addressing recipients						
		within a national or international						
	A calle and all and Chair	data exchange infrastructure, such as						Doctor
A.1.5.1	Author identifier	the licence or registration number. In case when the recipient is not a		Require	u	S		AMKA#
		health professional, e.g. patient,						
		appropriate personal identifier						
		should be used.						
		Person name [the structure of the						
A.1.5.2	Author name	name will be the same as for the		Require	ч	Y		
A.1.3.2	Addior name	patient (given name, family name /		nequire	"	'		
		surname)].						
		The healthcare provider organisation						
	Author	identifier. Identifier that is unique within a defined scope. Example:						
A.1.5.3	organisation ID	National healthcare provider ID.		Require	d	S		Hospital VAT#
	Organisation ib	Multiple identifiers could be						
		provided.						
A.1.5.4	Author	The healthcare provider organisation		Dam'.	a	Y		
A.1.5.4	organisation	information.		Require	u	Y		
		Date and time of the last						At least one IT
A.1.5.5	Date Time	modification of the document by its	ISO 8601	Require	d	S	ISO 8601	Company
		Author.						paj
A.1.6	Attester (multiple at	testers could be provided)		Option	1			
		The health professional identification number. Either an internal identifier						
A.1.6.1	Attester identifier	assigned by a healthcare provider		Optiona	I	NA		
		institution or (preferably) a national						
		modulation of (preferably) a national						



A.1.8.1	Document ID	Unique identifier of the document		Required	S		String
A.1.8	Document metadata			Required			6
A.1.7.5	Authentication date and time	Date and time when the document was authorised.	ISO 8601	Optional	NA		
A.1.7.4	Legal authenticator organisation	The healthcare provider organisation information.		Optional	NA		
A.1.7.3	Legal authenticator organisation ID	The healthcare provider organisation identifier. Identifier that is unique within a defined scope. Example: National healthcare provider ID. Multiple identifiers could be provided.		Optional	NA		
A.1.7.2	Legal authenticator name	Person name [the structure of the name will be the same as for the patient (given name, family name / surname)].		Optional	NA		
A.1.7.1	Legal authenticator identifier	The health professional identification number. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID such as the licence or registration number. Multiple identifiers could be provided.		Optional	NA		
A.1.7	Legal authenticator (document)	The person taking responsibility for the r	medical content of the	Optional			
A.1.6.5	Approval date and time	Date and time of the approval of the document by Attester.	ISO 8601	Optional	NA		
A.1.6.4	Attester organisation	The healthcare provider organisation information.		Optional	NA		
A.1.6.3	Attester organisation ID	The healthcare provider organisation identifier. Identifier that is unique within a defined scope. Example: National healthcare provider ID. Multiple identifiers could be provided.		Optional	NA		
A.1.6.2	Attester name	licence or registration number. Person name [the structure of the name will be the same as for the patient (given name, family name / surname)].		Optional	NA		
		health professional ID such as the					



A.1.8.2	Document type	Identifies the type of document at hand, e.g. Hospital discharge report.	LOINC	-	Required	S	LOINC	18842-5	Document type for hospital discharge letter
A.1.8.3	Document status	The status of the Hospital discharge report. E.g., preliminary, final.	hl7:CompositionStat us		Required	S	hl7:CompositionStat us		At least one IT Company
A.1.8.4	Report date and time	Date and time of the Hospital discharge report creation.	ISO 8601		Required	S	ISO 8601		
A.1.8.5	Document title	Document title, fix value "Hospital discharge report".			Required	Υ			
A.1.8.6	Report custodian	Organisation that is in charge of maintaining the report [this element will include organisation ID, name, address etc., as other elements describing organisations].			Required	Y			
A.1.8.7	Confidentiality	Level of confidentiality of the document. Implicit value is normal.	hl7:Confidentiality		Optional	NA			
A.1.8.8	Language	Language in which the document is written. Language is expressed by the ISO language code.	ISO 639		Required	S	ISO 639		At least one IT Company
A.1.8.9	Version	Version of the document			Required	S			At least one IT Company
HOSPITAL I	DISCHARGE REPORT BO	DDY							
A.2.0		eport in its narrative form		Core	Required	Υ			
A.2.1	Advance directives				Optional				
A.2.1.1	Living will	Only directives being expressed during current inpatient stay. Multiple records of living wills could be provided.			Optional				
A.2.1.1.1	Date and time	The date and time on which the living will was recorded.	ISO 8601		Optional	NA			
A.2.1.1.2	Туре	Type of a living will, e.g. Do not resuscitate, donorship statement, power of attorney etc.	SNOMED CT		Optional	NA			
A.2.1.1.3	Comment	Comment on the living will.			Optional	NA			
			ICD-10*						(Greek
		The problem or disorder to which the	SNOMED CT				ICD-10-GrM ICD-		Modification)
A.2.1.1.4	Related conditions	living will applies. Multiple fields could be provided.	Orphacode if rare disease is diagnosed		Optional	S	International Classification of Diseases		(version of classification must be indicated)



		Command annual designment with the							
A.2.1.1.5	Living will	Scanned source document with the living will and the patient's signature,			Optional	1	NA		
	document	such as a PDF.			· ·				
A.2.2	Alerts			Core	Required				
A.2.2.1	Allergy and Intolerance	A record of allergies and intolerances for new allergies or intolerances that of hospital stay).		Core	Required				
A.2.2.1.1	Allergy description	Textual description of the allergy or intolerance		Core	Required	١	Y		
A.2.2.1.2	Type of propensity	This element describes whether this condition refers to an allergy, non-allergy intolerance, or unknown class of intolerance (not known to be allergy or intolerance)	SNOMED CT		Required	!	N		
A.2.2.1.3	Allergy manifestation	Description of the clinical manifestation of the allergic reaction including date of manifestation and severity. Example: anaphylactic shock, angioedema (the clinical manifestation also gives information about the severity of the observed reaction). Multiple manifestations could be provided.	SNOMED CT	Core	Required	,	Y		Descriptive At least one IT Company
A.2.2.1.4	Severity	Severity of the clinical manifestation of the allergic reaction.	SNOMED CT		Required	1	N		
A.2.2.1.5	Criticality	Potential risk for future life- threatening adverse reactions when exposed to a substance known to cause an adverse reaction.	SNOMED CT		Optional	1	NA		
A.2.2.1.6	Onset date	Date of onset of allergy, e.g., date of the first observation of the reaction. Could be also expressed using a date, partial date or life period (childhood, adolescence).	SNOMED CT (Age group)		Optional	1	NA		
		Date of resolution of the allergy (e.g.	ISO 8601						
A.2.2.1.7	End date	when the clinician deemed there is no longer any need to track the underlying condition)	SNOMED CT (Age group)		Optional	1	NA		
A.2.2.1.8	Status	Current status of the allergy or intolerance, for example, whether it is active, in remission, resolved, and so on	Active, resolved,		Optional	1	NA		



A.2.2.1.9 A.2.2.1.10	Certainty Agent or Allergen	Assertion about the certainty associated with a propensity, or potential risk, of a reaction to the identified substance. Diagnostic and/or clinical evidence of condition. A specific allergen or other agent/substance (drug, food, chemical agent, etc.) to which the	SNOMED CT SNOMED CT ATC (IDMP / EMA SPOR	Core	Optional Required	NA Y		Descriptive At least one IT
		patient has an adverse reaction propensity.	SMS)					Company
A.2.2.2	Medical alerts (relev	ant for the respective hospital stay)		Core	Required			
		A warning, other than included in allergies.	SNOMED CT					
		The warning can be entered in code (there are codes for frequently used alerts) but seeing the dynamic nature of the warnings, these alerts will often be entered as free text.	LOINC					
		Any clinical information that is imperative to know so that the life or health of the patient does not come under threat. Example 1: the patient has a rare		_				
A.2.2.2.1	2.1 Healthcare alert description	disease that requires special treatment Example 2: Airway Alert / Difficult Intubation		Core F	Required	Y		Descriptive At least one IT Company
		Example 3: Diagnoses such as malignant hyperthermia, porphyria, and bleeding disorders; special treatments like anticoagulants or immunosuppressants; implanted devices. Example 4: transplanted organs illustrate other information that has to be taken into account in a healthcare contact. Example 5: participation in a clinical						
		trial that has to be taken into account						
		in a healthcare contact.						
A.2.3	Encounter			Core	Required			



A.2.3.1	Encounter type	The type of the encounter whether inpatient or short stay encounter.	hl7v3:ActEncounterC		Required	S	hl7v3:ActEncounterC		
A.2.3.2	Encounter note	A narrative description of the encounter course.	ode		Required	Υ	ode		At least one IT
A.2.3.3	Admission			Core	Required				
A.2.3.3.1	Admission urgency	Admission type, either emergency or planned	hI7:v3- xEncounterAdmissio nUrgency	Core	Required	S	admission Type	O1. Full Hospital treatment, Normal (not from another institution) O3. Short stay for dialysis O8. Inpatient admission for organ removal (as transplants)	
A.2.3.3.2	Admission date	Admission date and time.	ISO 8601	Core	Required	S	ISO 8601		
A.2.3.3.3	Admitting professional ID	The health professional identification number. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID such as the licence or registration number.			Required	Υ			
A.2.3.3.4	Admitting professional name	Person name [the structure of the name will be the same as for the patient (given name, family name / surname)].			Required	Υ			
A.2.3.3.5	Admitting organisation ID	The healthcare provider organisation identifier.			Required	Υ			
A.2.3.3.6	Admitting organisation	The healthcare provider organisation information.		Core	Required	Υ			
A.2.3.3.7	Admit Source	From where the patient was admitted (e.g. physician referral, transfer).	HI7:admit-source		Required	S	HI7:admit-source	P. Referral from a doctor E. Emergency referral from hospital's emergency department (TEII)	



								R. Transferred from rehabilitation unit T. Transfer from another hospital/instit ution in more than 24 hours S. Transfer from another hospital/instit ution in less than 24 hours B. Birth H. Regular referral from hospital's outpatient clinics (T.E.I.)	
A.2.3.3.8	Referring professional ID	The health professional identification number. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID such as the licence or registration number.			Required	S			Doctor AMKA#
A.2.3.3.9	Referring professional name	Person name [the structure of the name will be the same as for the patient (given name, family name / surname)].			Required	Υ			
A.2.3.3.10	Referring organisation ID	The healthcare provider organisation identifier.			Required	Υ			
A.2.3.3.11	Referring organisation	The healthcare provider organisation information.			Required	Υ			
A.2.3.4	Admission reason			Core	Required				
A.2.3.4.1	Admission reason	Reason or reasons for admission, e.g. Problem, procedure or finding.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed	- Core	Required	S	ICD10-GrM		
A.2.3.4.2	Admission reason comment	Explanation of the reason for the encounter.		Core	Required	Υ			



A.2.3.4.3	Admission legal status	Legal status/situation at admission. The legal status indicates the basis on which the patient is staying in a healthcare organisation. This can be either voluntary or involuntary, however the legal status is always determined by a court. A patient can also receive healthcare based on a forensic status. (voluntary, involuntary, admission by legal authority).	SNOMED CT		Optional	NA			
A.2.3.5	Discharge			Core	Required				
A.2.3.5.1	Discharge date	Discharge date and time	ISO 8601	Core	Required	S	ISO 8601		
A.2.3.5.2	Discharge destination type	Type of location to which the patient will go after the encounter. E.g. home, hospital, nursing home, left against medical advice etc.	hl7.discharge- disposition	Core	Required	S	dischargeReason	01. Treatment ended regularly (not including Death or Transfer to another hospital or institution) 02. Treatment ended regularly, post- treatment foreseen, not further defined 03. Treatment discontinued for other reasons 04. Treatment discontinued against medical advice	



								06. Transfer to another	
								hospital 07.Death	
								09.Discharge/ transfer in a rehabilitation facility	
A.2.3.5.3	Destination location	The location/organisation to which the patient will go after the encounter. Name, address and telecommunication contact.		Core	Required	Υ			At least one IT Company
A.2.3.6	Location - All location within the hospital.	ns/departments where the patient stayed	(was boarded)	Core	Required				
A.2.3.6.1	Period	Time period during which the patient was present at the location		Core	Required	Υ			
A.2.3.6.2	Organisation Part ID	The organisation's part identifier.			Required	Υ			ONLY discharge Clinic there is a list of Discharge Clinics
A.2.3.6.3	Organisation Part Name	Full name of the organisation part, e.g. Name of the department		Core	Required	Υ			
A.2.3.6.4	Organisation Part Details	Address, contact names and contact details, specialty of the organisation part.	SNOMED CT	Core	Required	Υ			At least one IT Company
A.2.4	Admission evaluation is relevant to ensure	n - Admission status should be reported ex continuity of care.	ceptionally only if it						
A.2.4.1	Objective findings	•			Required				
A.2.4.1.1	Date and time		ISO 8601		Required	S	ISO 8601		At least one IT Company
A.2.4.1.3	Anthropometric observations	Observation of Body weight and height or circumference of head, waist, hip, limbs a thickness. Result of the observation includes text, no results of the measurement including me Multiple observations could be provided.	umeric and coded		Required				
A.2.4.1.3. 1	Observation details	identifies observation, specification	SNOMED CT LOINC ISO 8601		Required	Υ			Descriptive At least one IT Company



		specimen, date and time of the						
		specimen collection, observation						
		method or protocol used and other						
		aspects of the observation						
		Result of the observation including						
		numeric and coded results of the						
		measurement, details about how the						
A.2.4.1.3.		tests were done to get the result	UCUM (for units of					Descriptive
2	Observation result	values, information about reference	measurement)		Required	Υ		At least one IT
_		ranges and result interpretation.	measurement					Company
		Content of the observation result will						
		vary according to the type of the						
		observation.						
		Vital signs observation:						
A.2.4.1.4	Vital signs	 Recommended: Pulse rate, respirator 	y rate, systolic and		Required			
A.Z.4.1.4	Vital signs	diastolic blood pressure with site inforn	nation		Required			
		Optional: 02 saturation, temperature,	, pain (scale),					
A.2.4.1.4.	Result description	Narrative representation of the			Required	Y		
1	Result description	observation result and findings.			Required	'		
		Observation details include code that						
		identifies observation, specification						
A.2.4.1.4.	Observation details	of the observed body structure or	SNOMED CT LOINC ISO 8601		Required			At least one IT
2		specimen, date and time of the				Y		Company
2		specimen collection, observation						Company
		method or protocol used and other						
		aspects of the observation.						
		Result of the observation including						
		numeric and coded results of the						
		measurement, details about how the						
A 2 4 1 4		tests were done to get the result	UCUM					At least one IT
A.2.4.1.4.	Observation result	values, information about reference			Required	Υ		
3		ranges and result interpretation.	(measurement units)					Company
		Content of the observation result will						
		vary according to the type of the						
		observation.						
		Physical examination is the process						
		of evaluating objective anatomical						
		findings. It is typically the first						
	Physical	diagnostic measure performed after			B			
A.2.4.1.5	examination	taking the patient's history, which			Required			
		allows an initial assessment of						
		symptoms and is useful for						
		determining the differential						
		2.2.2						



		I discuss and final section 20 of the					
		diagnoses and further steps. Physical					
		examination can be performed					
		through observation, palpation,					
		percussion, and auscultation.					
		A narrative description of the					
A.2.4.1.5.	Observation Note	observation. It should be structured		Required	Υ		
1	Observation Note	by the organ system (e.g. head, neck,		Required	'		
		body, arms,)					
	Functional status						
	Functional status can	be assessed in several different ways, us	ually with a focus on				
	the person's abilities	to perform basic activities of daily living (ADL), which include				
A.2.4.2	•	s bathing, feeding, and toileting and instr		Required			
		ich includes activities such as cooking, sh		•			
	one's own affairs.	0,					
	For details see: https:	//paciowg.github.io/functional-status-ig/	1				
		Need for the patient to be					
		continuously assessed by third					
A.2.4.2.1	Description	parties; functional status may		Required	Υ		At least one IT
	•	influence decisions about how to		•			Company
		plan and administer treatments					
42422	0	Open data of a condition	100 0004	D		100.0004	At least one IT
A.2.4.2.2	Onset Date	Onset date of a condition	ISO 8601	Required	S	ISO 8601	Company
	Functional	Description of the functional					
A.2.4.2.3	assessment	Description of the functional	ICF	Optional	NA		
	description	assessment					
A.2.4.2.4	Functional	Data of the functional assessment	100 9601	Ontional	NA		
A.2.4.2.4	assessment date	Date of the functional assessment	ISO 8601	Optional	NA		
42425	Functional	For discolor and a solution	105	Outland			
A.2.4.2.5	assessment result	Functional assessment result value	ICF	Optional	NA		
A.2.6	Patient history (migh	t include information about provenance	of the information)				
A.2.6.1	Medical history			Required			
		A list of conditions of a patient that the	patient suffered in the				
		past or still suffers. Unlike diagnostic su	immary, medical				
		history is not only a list of problems, bu	* 1				
		broader description of the condition ar					
	History of	about treatment including medication					
A.2.6.1.1	problems	to treatment. Past problem section (un		Required			
	problems	of the patient summary) should include					
		are important for continuity of care. The	•				
		complements the diagnostic summary	section of the				
		discharge report.					



A.2.6.1.1. 1	Problem description	Problem specification		Required	Υ		
A.2.6.1.1. 2	Problem details	Problem details include code that identifies problem, specification of the body structure, laterality, and other aspects of the problem.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed IPS Absent and Unknown Data ICD-0-3	Required	S	ICD10-GrM	
A.2.6.1.1.	Onset date	Onset date of the problem/condition	ISO 8601	Required	S	ISO 8601	
A.2.6.1.1. 4	End date	The date or estimated date that the condition resolved or went into remission.	ISO 8601	Required	S	ISO 8601	At least one IT Company
A.2.6.1.1. 5	Clinical status	Status of the condition/problem (active, resolved, inactive,)	hl7:condition-clinical	Required	S	hl7:condition-clinical	At least one IT Company
A.2.6.1.1. 6	Resolution circumstances	Describes the reason for which the status of the problem changed from current to inactive (e.g. surgical procedure, medical treatment, etc.). This field includes "free text" if the resolution circumstances are not already included in other fields such as surgical procedure, medical device, etc., e.g. hepatic cystectomy (this will be the resolution circumstances for the problem "hepatic cyst" and will be included in surgical procedures).		Optional	NA		
A.2.6.1.1. 7	Severity	A subjective assessment of the severity of the condition as evaluated by the clinician.	SNOMED CT	Required	N		
A.2.6.1.1. 8	Stage	Stage/grade, usually assessed formally using a specific staging/grading system.	e.g. TNM, ICD-O-3	Optional	NA		
A.2.6.1.2	Devices and Implants	Devices and Implants		Required			
A.2.6.1.2. 1	Device and implant description	Describes the patient's implanted and external medical devices and equipment upon which their health status depends. Includes devices such as cardiac pacemakers,	SNOMED CT EMDN IPS Absent and Unknown Data	Required	Υ		At least one IT Company



		implantable fibrillator, prosthesis,						
		ferromagnetic bone implants, etc. of						
		which the HP needs to be aware.						
A.2.6.1.2.		Normalised identifier of the device						
2	Device ID	instance such as UDI according to		C	Optional	NA		
2		REGULATION (EU) 2017/745						
A.2.6.1.2.	Implant date	The date and time the device was	ISO 8601		Required	S	ISO 8601	At least one IT
3	implant date	implanted or when its use began.	150 0001	'	required	3	150 0001	Company
		Date and time when the device was						
A.2.6.1.2.		explanted from the patient or the						
4	End date	external device was no longer in use;	ISO 8601	F	Required	N		
•		likewise when the device is planned						
		to be explanted						
			ICD-10					
A.2.6.1.2.	Reason	The medical reason for use of the	SNOMED CT	F	Required	S	ICD10-GrM	At least one IT
5		medical device.	Orphacode if rare					Company
			disease is diagnosed					
		Historical procedures performed on						
		or for a patient, relevant for the						
		current encounter.						
	History of	Examples include surgical		_				
A.2.6.1.3	procedures	procedures, diagnostic procedures,		۱ ۱	Required			
	·	endoscopic procedures, biopsies,						
		counselling, physiotherapy, personal						
		support services, adult day care						
		services, etc.	SNOMED CT					
			LOINC, NPU (for				ETIP- Greek	
A.2.6.1.3.			laboratory				Classification of	At least one IT
1	Procedure code	Procedure code	procedures)	F	Required	S	Medical Procedures	Company
1			IPS Absent and				version 2017-v.2	Company
			Unknown Data				VC131011 2017 V.2	
A.2.6.1.3.	Procedure	Narrative description of the	Onknown Data					
2	description	procedure		F	Required	Υ		
A.2.6.1.3.	·	Procedure target body site and						At least one IT
3	Body site	laterality	SNOMED CT	F	Required	Υ		Company
A.2.6.1.3.		Date and time when procedure was				_		
4	Procedure date	performed	ISO 8601	F	Required	S	ISO 8601	
		The coded reason why the procedure	ICD-10*					
A.2.6.1.3.		was performed. This may be a coded	SNOMED CT			•	10040 0 44	
5	Procedure reason	entity or may simply be present as	Orphacode if rare	F	Required	S	ICD10-GrM	
		text.	disease is diagnosed					



		The outcome of the procedure - did it					1
A.2.6.1.3.	Outcome	resolve the reasons for the procedure being performed? Applicable mainly on surgical procedures.	SNOMED CT	Required	Y		
A.2.6.1.3.	Focal device	A reference to the device or devices that is implanted, removed or otherwise manipulated (calibration, battery replacement, fitting a prosthesis, attaching a wound-vac, etc.) as a focal portion of the Procedure.		Optional	NA		
A.2.6.1.4	Vaccination	Vaccination history of the patient.		Required			
A.2.6.1.4. 1	Disease or agent targeted	Disease or agent that the vaccination provides protection against	ICD-10* SNOMED CT	Required	S	ICD10-GrM	
A.2.6.1.4. 2	Vaccine/prophylaxi s	Generic description of the vaccine/prophylaxis or its component(s)	SNOMED CT ATC (IDMP/ EMA SPOR SMS)	Required	Y		At least one IT Company
A.2.6.1.4. 4	Vaccine medicinal product	Medicinal product name		Required	Υ		
A.2.6.1.4. 5	Marketing Authorisation Holder	Marketing Authorisation Holder or manufacturer (Identifier and name)	EMA's Organisations Management Service (EMA SPOR OMS)	Optional	NA		
A.2.6.1.4.	Number in a series of vaccinations / doses	Order in the vaccination course.		Optional	NA		
A.2.6.1.4. 7	Date of vaccination	The date and time when the vaccination was administered	ISO 8601	Optional	NA		
A.2.6.1.4. 8	Next vaccination date	The date when the vaccination is planned to be given/repeated (e.g. next dose)	ISO 8601	Optional	NA		
A.2.6.1.5	Epidemiological history	Travel history and infectious contacts		Required			
A.2.6.1.5. 1	Infectious contacts	Infectious contacts of the patient		Required			
A.2.6.1.5. 1.1	Time period	A date and duration or date time interval of contact. Partial dates are allowed.	ISO 8601	Required	N		
A.2.6.1.5.		Information about a suspected	ICD-10* (chapter 1)				
1.2	Infectious agent	infectious agent or agents the person was exposed to.	SNOMED CT	Required	N		
	Proximity		SNOMED CT	Required	N		



		Description of the second					
A.2.6.1.5. 1.3		Proximity to the source/carrier of the infectious agent during exposure. Proximity could be expressed by text, code (direct, indirect) or value specifying distance from the InfectiousAgentCarrier.	UCUM (measurement units)				
A.2.6.1.5. 1.4	Country	Country in which the person was potentially exposed to an infectious agent.	ISO 3166	Required	N		
A.2.6.1.5. 1.5	Additional information	A textual note with additional information about infectious contact.		Required	N		
A.2.6.1.5. 2	Travel history	Travel history reported by the patient. Multiple records could be provided.		Required			
A.2.6.1.5. 2.1	Time period	Start and end date or end date and duration of stay in a country. Partial dates are allowed.	ISO 8601	Required	N		
A.2.6.1.5. 2.2	Country visited	A country visited by the patient.	ISO 3166	Required	N		
A.2.6.1.5. 2.3	Comment	Relevant notes on the travel stay.		Optional	NA		
A.2.6.2	Family history	Information about serious illnesses in close blood relatives with known or suspected genetic potential or with possible impact on patient care.		Required			
A.2.6.2.1	Patient relationship	The family relation between the related person and the patient.	hl7:v3-RoleCode	Required	Υ		
A.2.6.2.2	Date of birth	Full or partial date of birth	ISO 8601	Optional	NA		
A.2.6.2.3	Age or date of death	Age or date of the death of the family member.	ISO 8601	Optional	NA		
A.2.6.2.5	Condition	Medical problems this person suffers or suffered.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed	Required	S	ICD10-GrM	
A.2.6.2.6	Cause of death	Information about disease or condition that was the main cause of death.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed	Required	S	ICD10-GrM	
A.2.6.3	Social determinants of health	Information about social determinants of health.		Required			



A.2.6.3.1	Participation in society	Participation in society details.		Optional				
A.2.6.3.1. 1	Work situation	Work Situation describes the extent to which and in what way the patient participates in the workforce. Work is meant in the broadest sense of the word: activities that contribute to the person themselves, their environment or society. This includes both paid and unpaid work.		Optional		NA		
A.2.6.3.1. 2	Hobby	An activity the patient enjoys doing in their free time.		Optional		NA		
A.2.6.3.1. 3	Social network	A description of the patient's social network, such as family, neighbours and friends.		Optional		NA		
A.2.6.3.2	Education			Optional				
A.2.6.3.2. 1	Education level	Indication of the highest level of education achieved.	hl7:v3.EducationLeve	Optional		NA		
A.2.6.3.2. 2	Comment	If deemed relevant, a specification of the degree program can be provided by means of an explanation (e.g.: patient is in medical school).		Optional		NA		
A.2.6.3.3	Living situation	Household type and other related living situation information.		Optional				
A.2.6.3.3.	House type	Type of home the patient lives in.	SNOMED CT	Optional		NA		
A.2.6.3.3. 2	Home adaption	Adaptions present in the home that have been made in the context of the illness or disability to make the functioning of the patient safer and more comfortable and to enable independent living. Multiple data elements could be provided.	SNOMED CT	Optional		NA		
A.2.6.3.3.	Living conditions	Conditions that affect the accessibility of the home or the stay in the home. Multiple data elements could be provided.	SNOMED CT	Optional		NA		
A.2.6.3.4	Family situation	Family situation details.		Optional	_			
A.2.6.3.4. 1	Comment	A comment on the family situation.		Optional		NA		



		The family composition describes the						
		patient's home situation and the						
A.2.6.3.4.	Family as as as a sixian		CNIONAED CT		Outional .	NIA		
2	Family composition	form of cohabitation.	SNOMED CT	(Optional	NA		
		A family can consist of one or more						
		people.						
A.2.6.3.4.		A person's marital status according	1.17 . 2.44 .: 10: .					
3	Marital status	to the terms and definition in the	hl7: v3-MaritalStatus	(Optional	NA		
		national civil code.						
		The number of children the patient						
A.2.6.3.4.		has. Children in the context of this						
4	Number of children	information model include step		(Optional	NA		
		children, foster children, biological						
		and adopted children.						
A.2.6.3.4.	Number of children	The number of children living at		(Optional	NA		
5	at home	home with the patient.						
A.2.6.3.4.		Child age, co-living status and						
6	Child details	comment. Multiple child details		(Optional	NA		
_		could be provided.						
A.2.6.3.4.		The activities the patient carries out						
7	Care responsibility	to care for a dependent family		(Optional	NA		
,		member.						
A.2.6.4	Use of substances			F	Required			
		Alcohol consumption by the patient.						
A.2.6.4.1	Alcohol use	Multiple records on alcohol use could		F	Required			
		be provided.						
A.2.6.4.1.	Status	The status of the patient's alcohol	SNOMED CT	F	Required	Υ		
1	Status	use.	SNOWED CI	<u>'</u>	(cquired	•		
A.2.6.4.1.		Period of use and amount (The						
2	Period and quantity	extent of the patient's alcohol use in			Optional	NA		
		units of alcohol per time period.)						
A.2.6.4.1.	Comment	Textual comment.			Optional	NA		
3	Comment				optional .	1471		
		Represent smoking or tobacco						
A.2.6.4.2	Tobacco use	habits. Multiple records on tobacco		F	Required			
		use could be provided.						
A.2.6.4.2.	Status	The status of the patient's tobacco	SNOMED CT		Required	Υ		
1	Status	use.	SINOIVIED CI		vedanea	1		
A.2.6.4.2.		Period of use and amount (The						
A.2.6.4.2. 2	Period and quantity	extent of the patient's tobacco use in		F	Required	Υ		
		units of alcohol per time period.)						
A.2.6.4.2.	Commont	Toytual comment			Poquirod	Υ		
3	Comment	Textual comment.			Required	r		
3	Comment	Textual collillellt.		'	required	•		



A.2.6.4.3	Drug consumption	Consumption of drugs and other substances (in terms of abuse).			Required			
A.2.6.4.3.	Status	The status of the patient's drug use.	SNOMED CT		Optional	NA		
A.2.6.4.3.	Period and quantity	Period of use and amount.			Required	Υ		At least one IT Company
A.2.6.4.3.	Drug or medication type	Type of the drug consumption	SNOMED CT		Required	N		. ,
A.2.6.4.3.	Route of administration	Route or routes of administration	EDQM Standard Terms		Required	N		
A.2.6.4.3. 5	Comment	Textual comment			Required	N		
A.2.7	Course of hospitalisa			Core	Required			
A.2.7.1	Diagnostic summary	All problems/diagnoses that affect care case or are important to be recorded to care. The diagnostic summary different with the international recommendation treated during hospital stay and other (Treated problems are problems that widiagnostics, therapy, nursing, or (conting during the hospitalisation. Furthermore divided into three categories: problems (POA), conditions acquired during hosp problems that cannot be classified as b (N/A). The diagnostic summary contain were recognised at the end of hospitali examinations. This section contains cor codeable, summary of problems. Problem problems (main problems first) durin Description of the problem might be coadditional details in the medical history Synthesis section.	o ensure continuity of ciates, in accordance in, between problems (untreated) problems. Ere the subject of individual stay (HAC) and eing of any of the two is all conditions as they sation, after all incise, well specified, ems are ordered by g hospital stay.	Core	Required			
A.2.7.1.1	Problem description	Problem specification in narrative form		Core	Required	Υ		
A.2.7.1.2	Problem details	Problem details include code that identifies problem, specification of the body structure, laterality, and other aspects of the problem.	ICD-10* SNOMED CT ICD-O-3 Orphacode if rare disease is diagnosed IPS Absent and Unknown Data	Core	Required	S	ICD10-GrM	



A.2.7.1.3	Onset date	Onset date of a problem/condition	ISO 8601	Core	Required	S	ISO 8601	At least one IT Company
A.2.7.1.4	End date	The date or estimated date that the condition resolved or went into remission.	ISO 8601		Optional	NA		
A.2.7.1.5	Category	Category of the problem allows flagging for conditions acquired during hospital stay. - Present on admission [POA]) - Hospital acquired condition [HAC] Not applicable or unknown		Core	Required	Y		At least one IT Company
A.2.7.1.6	Treatment class	Class of the problem (treated, other) in relation to the hospital encounter. Treated problems were treated or affected provisioning of care (diagnostics, therapy, nursing, monitoring) during the hospital encounter. At least one problem should be marked as Treated. Other problems are recorded only if they are important for continuity of care (after discharge).	Treated, Other	Core	Required	Y		At least one IT Company
A.2.7.1.7	Clinical status	Status of the condition/problem (active, resolved, inactive,)	hl7:condition-clinical		Required	Υ		At least one IT Company
A.2.7.1.8	Resolution circumstances	Describes the reason for which the status of the problem changed from current to inactive (e.g. surgical procedure, medical treatment, etc.). This field includes "free text" if the resolution circumstances are not already included in other fields such as surgical procedure, medical device, etc., e.g. hepatic cystectomy (this will be the resolution circumstances for the problem "hepatic cyst" and will be included in surgical procedures).			Optional	NA		Company
A.2.7.1.9	Severity	A subjective assessment of the severity of the condition as evaluated by the clinician.	hl7:condition- severity		Required	Y		At least one IT Company
A.2.7.1.10	Stage		e.g. TNM		Optional	NA		



		Stage/grade usually assessed						
		formally using a specific						
		staging/grading system. Multiple	ICD-0-3					
		assessment systems could be used.						
		Significant surgical and non-surgical						
		procedures performed during						
		hospitalisation which are significant						
		for continuity of care, e.g. surgeries						
		and other "instrumental"						
		interventions (endoscopic,						
		intravascular), chemotherapy,						
		radiotherapy, purification methods						
A.2.7.2	Significant	(dialysis, hemoperfusion), circulation		Core	Required			
	procedures	support methods (counterpulsation,						
		etc.), administration of blood						
		derivatives or others.						
		This section does not include purely						
		diagnostic procedures (MRI, CT, etc.). If no significant performance has						
		been performed, this fact must be						
		explicitly stated using the IPS Absent						
		and Unknown Data.						
			SNOMED CT				ETIP- Greek	
							Classification of	
A.2.7.2.1	Procedure code	Procedure code	IPS Absent and	Core	Required	S	Medical Procedures	
			Unknown Data				version 2017-v.2 &	
							ELOKIP	
A.2.7.2.2	Procedure	Narrative description of the		Core	Required	Υ		
	description	procedure			•			
A.2.7.2.3	Body site	Procedure target body site and laterality	SNOMED CT		Optional	NA		
		Date and time when procedure was						
A.2.7.2.4	Procedure date	performed	ISO 8601	Core	Required	S	ISO 8601	
		The coded reason why the procedure	ICD-10*					
42725	Dunna dunna mana s	was performed. This may be a coded	SNOMED CT		Descriped		ICD10 C-M	
A.2.7.2.5	Procedure reason	entity or may simply be present as	Orphacode if rare		Required	S	ICD10-GrM	
		text.	disease is diagnosed					
		The outcome of the procedure - did it						
A.2.7.2.6	Outcome	resolve the reasons for the	SNOMED CT		Optional	NA		
		procedure being performed?						
A.2.7.2.7	Complication	Any complications that occurred	ICD-10*		Required	S	ICD10-GrM	
	r	during the procedure, or in the	SNOMED CT		- 4.			



		immediate post-performance period. These are generally tracked separately from the procedure description, which will typically describe the procedure itself rather than any 'post procedure' issues.	Orphacode if rare disease is diagnosed					
A.2.7.2.8	Focal device	A reference to the device or devices that is/are implanted, removed, or otherwise manipulated (calibration, battery replacement, fitting a prosthesis, attaching a wound-vac, etc.) as a focal portion of the Procedure.		Core	Required	Y		At least one IT Company
A.2.7.3	Medical devices and implants	Implants and used medical devices that affected or may affect the provision of health services (diagnosis and treatment). Also medical devices explanted, or its use was stopped during hospitalisation. If the section is blank, the reason must be explicitly stated using the IPS Absent and Unknown Data coding system		Core	Required			
A.2.7.3.1	Device and implant description	Describes the patient's implanted and external medical devices and equipment upon which their health status depends. Includes devices such as cardiac pacemakers, implantable fibrillator, prosthesis, ferromagnetic bone implants, etc. of which the HP needs to be aware.	IPS Absent and Unknown Data	Core	Required	S	ETIP- Greek Classification of Medical Procedures version 2017-v.2 & ELOKIP	At least one IT Company
A.2.7.3.2	Device ID	Normalised identifier of the device instance such as UDI according to REGULATION (EU) 2017/745			Optional	NA		
A.2.7.3.3	Implant date	The date and time the device was implanted or when its use began.	ISO 8601	Core	Required	s	ISO 8601	At least one IT Company
A.2.7.3.4	End date	Date and time when the device was explanted from the patient or the external device was no longer in use; likewise when the device is planned to be explanted	ISO 8601	Core	Required	N		
A.2.7.3.5	Reason	The medical reason for use of the medical device.	ICD-10* SNOMED CT	-	Required	S	ICD10-GrM	



			Orphacode if rare					
			disease is diagnosed					
A.2.7.5	Pharmacotherapy	Selected drug treatment during hospital products that were administered during whose administration has already been discharge. Only products which are impof care (antibiotics other than complete corticosteroids in high doses, etc.) will lead which administration will continue after recorder in the Medication summary seemedicinal products, the administration during hospitalisation, but is also record discharge, will be listed in the summary recommendation section.	disation. Medicinal ghospitalisation and discontinued before cortant for continuity ely routine, pelisted. Products r discharge will be also ection. of which was started mended after rable in the	Core	Required			
A.2.7.5.1	Medication reason	The reason why the medication is or was prescribed or used. It provides a link to the Past or current health conditions or problems that the patient has had or has.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed		Required	S	ICD10-GrM	
A.2.7.5.2	Code	Product code	IDMP	Core	Required	S	National Organization for Medicines (EOF) Code	
A.2.7.5.3	Intended use	Indication intended use as: prevention or treatment Example: prophylaxis, treatment, diagnostic, anaesthesia.			Optional	NA		
A.2.7.5.4	Brand name	Brand name if biological medicinal product or when justified by the health professional (ref. Commission Directive 2012/52/EU)		Core	Required	S	National Organization for Medicines (EOF) Code	
A.2.7.5.5	Active ingredient list	Substance that alone or in combination with one or more other ingredients produces the intended activity of a medicinal product. Example: "paracetamol"	ATC (IDMP / EMA SPOR SMS)		Required	S	National Organization for Medicines (EOF) Code	
A.2.7.5.6	Strength	The content of the active ingredient expressed quantifiably per dosage unit, per unit of volume or per unit of weight, according to the pharmaceutical dose form. Example: 500 mg per tablet	EDQM Standard terms		Required	Υ		At least one IT Company



A.2.7.5.7	Pharmaceutical dose form	The form in which a pharmaceutical product is presented in the medicinal product package (e.g. tablet, syrup)	EDQM Standard Terms		Required	S	National Organization for Medicines (EOF) Code	
A.2.7.5.8	Dosage Regimen	Number of units per intake and frequency of intake over a specified duration of time. Example: 1 tablet every 24h, for 10 days			Required	S	National Organization for Medicines (EOF) Code	
A.2.7.5.9	Route of administration	Path by which the pharmaceutical product is taken into or makes contact with the body.	EDQM Standard Terms		Required	Υ		At least one IT Company
A.2.7.5.10	Period of treatment	The time interval when the patient was, or was not, given the medication.		Core	Required	Υ		At least one IT Company
A.2.7.6	Significant Observation Results	Results of significant functional, diagno examinations to ensure continuity of cahospitalisation. Results of examinations delivered should be presented separate delivered.	are, performed during sordered but not yet		Required			
A.2.7.6.1	Date	Date and time of the observation	ISO 8601	Core	Required	S	ISO 8601	At least one IT Company
A.2.7.6.2	Observation status	Status of the observation (e.g. registered, preliminary, final)	hl7:observation- status		Optional	NA		
A.2.7.6.3	Result description	Narrative representation of the observation result and findings.		Core	Required	Υ		
A.2.7.6.4	Observation details	Observation details include code that identifies observation, specification of the observed body structure or specimen, date and time of the specimen collection, observation method or protocol used and other	LOINC NPU SNOMED CT	Core	Required	Y		At least one IT Company
A.2.7.6.5	Observation result	aspects of the observation. Result of the observation including numeric and coded results of the measurement, details about how the tests were done to get the result values, information about reference ranges and result interpretation. Content of the observation result will vary according to the type of the observation.	SNOMED CT UCUM (measurement units)	Core	Required	Υ		At least one IT Company



		With certain observation results, e.g.						
A.2.7.6.7	Reporter	there may also be an interpreter or a			Optional	NA		
		person responsible for validation.						
		This section provides clinical synthesis (e.g. description of					
		reasons and course of hospital stay) clu	stered by managed					
A.2.7.7	Synthesis	conditions, Clinical synthesis may include	,	Core	Required			
	•	(differential diagnostics, explanation of			·			
		clinically complex conditions.	•					
		Summary description of the reason						
A.2.7.7.1	Problem synthesis	and course of hospitalisation for a		Core	Required	N		
	, , , , , , , , , , , , , , , , , , , ,	specific problem.						
		The clinical summary can be						
		concluded with a clinical						Descriptive
A.2.7.7.2	Clinical reasoning	consideration (diff. diagnosis,			Required	Υ		At least one IT
		explanation of context, etc.) for						Company
		clinically complex conditions.						,
	Discharge details (st	ructured information should be provided	. however if not	_				
A.2.8	,	summary note should be present).	,	Core	Required			
A.2.8.1	Objective findings			Core	Required			
12011		Date and time of the examination at	100.0004		0 .: 1			
A.2.8.1.1	Date	or before discharge	ISO 8601		Optional	NA		
		Observation of Body weight and height	of the patient, BMI,					
		circumference of head, waist, hip, limbs	s and skin fold					
	Anthropometric	thickness.						
A.2.8.1.3	observations	Result of the observation includes text,	numeric and coded	Core	Required			
		results of the measurement including m	neasurement units.					
		Multiple observations could be provide	d.					
A.2.8.1.3.	Bara III dan adalah	Narrative representation of the			0.11			
1	Result description	observation result and findings.			Optional	NA		
		Observation details include code that	SNOMED CT					
		identifies observation, specification	LOINC					
A 2 0 1 2		of the observed body structure or						
A.2.8.1.3.	Observation details	specimen, date and time of the		Core	Required	N		
2		specimen collection, observation	ISO 8601		·			
		method or protocol used and other						
		aspects of the observation.						
		Result of the observation including						
		numeric and coded results of the						
A.2.8.1.3.	Observation as II	measurement, details about how the	UCUM	Caus	Danishad	N		
3	Observation result	tests were done to get the result	(measurement units)	Core	Required	N		
		values, information about reference						
	The state of the s							
		ranges and result interpretation.						



A.2.8.1.4. Vital signs A.2.8.1.4. Vital signs A.2.8.1.4. Vital signs A.2.8.1.5. Physical examination A.2.8.1.5. Observation Note A.2.8.1.5. Description A.2.8.1.5. Description A.2.8.1.6. Observation Note A.2.8.1.7. Description A.2.8.1.8. Physical examination A.2.8.1.5. Description A.2.8.1.5. Physical examination A.2.8.1.5. Description A.2.8.1.5. Description A.2.8.1.5. Description A.2.8.1.5. Description A.2.8.1.5. Physical examination A.2.8.1.5. Description A.2.8.1.			Content of the observation result will						
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A.2.8.1.4. Vital signs			1						
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A 2.8.1.4. 2				pain (scale),					
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For details see: https://paciowg.github.io/functional-status-	A.2.0.2	i unctional status			Core	Required			
ig/			For details see: https://paciowg.github.i	io/functional-status-					
			<u>ig/</u>						



A.2.8.2.1	Description	Need for the patient to be continuously assessed by third parties; functional status may influence decisions about how to plan and administer treatments		Core	Required	N		
A.2.8.2.2	Onset Date	Onset date of a condition	ISO 8601		Required	N		
A.2.8.2.3	Functional assessment description	Description of the functional assessment	e.g. ICF		Required	N		
A.2.8.2.4	Functional assessment date	Date of the functional assessment	ISO 8601		Optional	NA		
A.2.8.2.5	Functional assessment result	Functional assessment result value	e.g. ICF		Required	N		
A.2.8.3	Discharge note	Discharge summary note			Required	Υ		At least one IT Company
A.2.9	Care plan and other	recommendations after discharge.		Core	Required			
A.2.9.1	Care plan	Care plan after discharge. Multiple care provided.	e plans could be	Core	Required			
A.2.9.1.1	Title	Human-friendly name for the care plan (e.g. Hip replacement care plan)			Required	N		
A.2.9.1.2	Addresses	Identifies the conditions/problems/concerns/diagn oses/etc. whose management and/or mitigation are handled by this plan. This element provides a linkage to the conditions recorded in the diagnostic summary section.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed		Required	S	ICD10-GrM	At least one IT Company
A.2.9.1.3	Description	A description of the scope and nature of the plan.		Core	Required	N		
A.2.9.1.4	Plan Period	Indicates when the plan did (or is intended to) come into effect and end.			Optional	NA		
A.2.9.1.5	Other details	Other structured and coded details, care team, goals to be achieved.			Optional	NA		
A.2.9.1.6	Activity	Actions to occur as part of the plan.			Required			
A.2.9.1.6. 1	Kind	A description of the type of care plan activity. For example, a MedicationRequest, a	hl7:resource-types		Optional	NA		



		ServiceRequest, or a						
		CommunicationRequest.						
A.2.9.1.6. 2	Activity description	A detailed description of the activity.			Required	N		
A.2.9.1.6.	Specific attributes	Specific structured attributes per each activity type expressed by the Activity kind element, E.g., specific attributes for prescription request, appointment, etc.			Optional	NA		
A.2.9.2	Medication summary	Summary information on the medication the period after discharge, indicating we is changed or newly started. Compared the overview is supplemented with me discontinued.	to previous practices,	Core	Required			
A.2.9.2.1	Medication reason	The reason why the medication is or was prescribed or used. It provides a link to the Past or current health condition(s) or problem(s) that the patient has had or has and for which this medication was prescribed.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed	Core	Required	S	ICD10-GrM	
A.2.9.2.2	Reason for change	Reason for change of medication	hl7:reason- medication-status- codes	Core	Required	N		
A.2.9.2.3	Code	Product code.	IDMP	Core	Optional	NA		
A.2.9.2.4	Brand name	Brand name if biological medicinal product or when justified by the health professional (ref. Commission Directive 2012/52/EU)		Core	Required	Υ		
A.2.9.2.5	Active ingredient list	Substance that alone or in combination with one or more other ingredients produces the intended activity of a medicinal product. Example: "paracetamol"	ATC (IDMP / EMA SPOR SMS)	Core	Required	Y		At least one IT Company
A.2.9.2.6	Strength	The content of the active ingredient expressed quantifiably per dosage unit, per unit of volume or per unit of weight, according to the pharmaceutical dose form. Example: 500 mg per tablet	EDQM Standard terms	Core	Required	S	National Organiation for Medicines (EOF) Code	At least one IT Company
A.2.9.2.7	Pharmaceutical dose form	The form in which a pharmaceutical product is presented in the medicinal product package (e.g. tablet, syrup)	EDQM Standard terms	Core	Required	Υ		At least one IT Company



		I							
		Number of units per intake and							
		frequency of intake over a specified							
A.2.9.2.8	Dosage Regimen	duration of time.		Core	Required	Υ			
		Example: 1 tablet every 24h, for 10							
		days							
	Route of	Path by which the pharmaceutical	EDQM Standard						At least one IT
A.2.9.2.9	administration	product is taken into or makes		Core	Required	Υ			
	aummstration	contact with the body.	terms						Company
		The interval of time during which it is							
4 2 0 2 40	Period of	being asserted that the patient			D	V			At least one IT
A.2.9.2.10	treatment	is/was/will be taking the medication		Core	Required	Υ			Company
		(or was not taking).							. ,
		Number of days for which the patient							
		was provided with the drug. Supply is							
		intended to either hand over the							
		medicine or write out a prescription.							
A.2.9.2.11	Days supplied	A 0 value indicates that the patient	UCUM	Core	Optional	NA			
		has not been provided with the drug							
		(e.g. if the patient has a sufficient							
		supply of the drug)							
		Other recommendations (advice)							
		after discharge. Multiple							
		recommendations could be provided.							
A.2.9.3	Other	E.g., recommendation to suggest hip		Core	Required	Υ			Descriptive
	recommendations	replacement, reduce number of			- 1				
		cigarettes, stop smoking, increase							
		physical exercises, etc.							
Other requi	ired data fields that are	not present in these guidelines.							
		Weight on admission. To be							
A.2.3.3.x	Admitting weight	completed for patients age less than		Core	Required	Υ			In grams
	0 0	1 year.							0
		,						A.	
								Satisfactory	
							HL7.PV2.PatientCon	C. Critical	
	Hospitalization						dition Code (Greek	P. Poor	
A.2.3.5.x	outcome	Patient' discharge condition.		Core	Required	S	Values - NOT	S. Stable	
							STANDARD HL7)	O. Other	
								U. Unknown	
								D. Death	



Annex VI – X-Bubble 6 eHN guidelines analysis

						National	Authority to	National /	Authority - bubble 6 - NCZI	
									rmation available?	
#	Field	Field description	Preferred Code System	Core	Required Optional Not required	Cardinalit Y	(Y)es N(o) (S)tructure d	Code System	Value Sets	Comments
HOSPITAL D	ISCHARGE REPORT HEA	DER								
A.1		oort header data element			Required					
A.1.1	Identification of the pa	atient/subject			Required					
A.1.1.1	Given name	The given name/first name of the patient (also known as forename or first name). This field can contain more than one element.			Optional	0:1	N			3th part information (RFO)
A.1.1.2	Family name/surname	The family name/surname/last name of the patient. This field can contain more than one element or multiple fields could be present.			Optional	0:1	N			3th part information (RFO)
A.1.1.3	Date of birth	Complete date, following the ISO 8601.	ISO 8601		Optional	0:1	N			
A.1.1.4	National healthcare patient ID	An identifier of the patient that is unique within a defined scope. Example: National ID (birth number) for a Czech patient. Multiple identifiers could be provided			Required	1:1	S			
A.1.1.5	Nationality	Nationality of the patient.	ISO 3166		Optional	0:1	N			3th part information (RFO)
A.1.1.6	Gender	This field must contain a recognised valid value for "administrative gender". If different, "physiological gender" should be communicated elsewhere in the relevant clinical information section.	HL7 Administrative Gender		Optional	0:1	S			3th part information (RFO)
A.1.1.7	Country of affiliation	Name of country of affiliation	ISO 3166		Required	1:1	S			only SK public healthcare insurance.
A.1.2	Patient/subject related	d contact information			Required					
A.1.2.1	Patient address				Optional					
A.1.2.1.1	Address	Mailing and home or office addresses. The addresses are always sequences of	ISO 3166		Optional	0:1	S			



					1	1	1		
		address parts (e.g. street address line,							
		country, postcode, city) even if postal							
		address formats may vary depending on							
		the country. An address may or may not							
		include a specific use code; if this							
		attribute is not present it is assumed to							
		be the default address useful for any							
		purpose.							
		Telecommunication contact information							
		(addresses) associated with a person,							
	T-1	such as phone number, email, or		0.11		.,			
A.1.2.1.2	Telecom	messaging service. Multiple		Optional	0:1	Y			
		telecommunication addresses might be							
		provided.							
	Preferred health profe	ssional (HP) - This section can be repeated	and linked to any						
A.1.2.2	specific information in	the document, for example a link between	a rare disease	Dogwinod					
A.1.2.2	problem and the rare	disease specialist responsible for the care o	f the individual	Required					
	patient (this section).								
		An identifier of the health professional							
A.1.2.2.1	Identifier of the HP	that is unique within a defined scope.		Required	1:1	S			
A.1.2.2.1	identifier of the fir	Example: National health professional ID.		Required	1.1	3			
		Multiple identifiers could be provided.							
		Name of the health professional that has							
		been treating or taking responsibility for							
A.1.2.2.2	Name of the HP	the patient.[the structure of the name		Required	1:1	Υ			
		will be the same as for the patient (given							
		name, family name / surname)]							
		Health professional role. Multiple roles					Nation	1.3.158.00165387.100.10.	
A.1.2.2.3	Role of the HP	could be provided.	ISCO	Required	1:1	S	al code	34 Zdravotnícka odbornosť	
		·					system	54 Zuravotinicka oubornost	
A.1.2.2.4	HP Organisation	Health professional organisation		Required	1:1	Υ			
		Mailing and home or office addresses.							
		The addresses are always sequences of							
		address parts (e.g. street address line,							
		country, postcode, city) even if postal							
A.1.2.2.5	Address	address formats may vary depending on	ISO 3166	Optional	0:1	S			
	7.44.655	the country. An address may or may not	.55 5100	- Priorial					
		include a specific use code; if this							
		attribute is not present it is assumed to							
		be the default address useful for any							
		purpose.							
A.1.2.2.6	Telecom	Telecommunication contact information		Optional	1:1	Υ			
,		(addresses) associated with a person,		o p tioriai					



			1					
		such as phone number, email, or						
		messaging service. Multiple						
		telecommunication addresses might be						
		provided.						
A.1.2.3	Contact person/ legal	guardian (multiple contacts could be provid	ed)	Optional				
		Role of the contact person: legal						
A.1.2.3.1	Role of that person	guardian, next of kin, other person to	HL7 RoleClass	Optional	0:N	N		
		contact.						
A.1.2.3.2	Relationship level	Relationship type with the patient (e.g.	HL7 RoleCode	Optional	0:N	V		
A.1.2.3.2	Relationship level	father, wife, daughter)	SNOMED CT	Ориона	U.IV			
		Given name of the contact						
A.1.2.3.4	Given name	person/guardian . This field can contain		Optional	0:N	Υ		
		more than one element.						
		Family name of the contact person. This						
	Family.	field can contain more than one element						
A.1.2.3.5	Family	[the structure of the name will be the		Optional	0:N	Υ		
	name/surname	same as for the patient (given name,						
		family name / surname)]						
		Mailing, home or office addresses. The						
		addresses are always sequences of						
		address parts (e.g. street address line,						
		country, postcode, city) even if postal						
44226	Address	address formats may vary depending on	100 2466	0.15	0.11			
A.1.2.3.6	Address	the country. An address may or may not	ISO 3166	Optional	0:N	S		
		include a specific use code; if this						
		attribute is not present it is assumed to						
		be the default address useful for any						
		purpose.						
		Telecommunication contact information						
		(addresses) associated with a person,						
		such as phone number, email, or						
A.1.2.3.7	Telecom	messaging service. Multiple		Optional	0:N	Υ		
		telecommunication addresses might be						
		provided.						
	Contact person					1		
A.1.2.3.8	organisation	Contact person organisation information.		Optional	0:N	N		
		payment information - Health insurance info	ormation is not					
		ever, in some jurisdictions, the insurance nu						
A.1.3		It is necessary not just for identification but		Required				
	funding for care.	,						
	Health insurance	Unique health insurance company						
A.1.3.1	code	identification code.		Required	1:1	S		



	Health insurance	Full, official name of the healthcare						
A.1.3.2	name	insurance provider.		Required	1:1	S		
A.1.3.3	Health insurance number	Number or code under which the insured person is registered at the insurance provider.		Required	1:1	s		
A.1.4	Information recipient	- (intended recipient or recipients of the rep	oort), if applicable	Not required				
A.1.4.1	Recipient identifier	The health professional or patient identifier. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID such as the licence or registration number. In case when the recipient is not a health professional, e.g. patient, appropriate personal identifier could be used.		Not required		N		just in requirement for MD, recipient, patient, Reviewing doctor,
A.1.4.2	Recipient name	Person name [the structure of the name will be the same as for the patient (given name, family name / surname)].		Not required		N		just in requirement for MD, recipient, patient, Reviewing doctor,
A.1.4.3	Recipient organisation ID	The healthcare provider organisation identifier. Identifier that is unique within a defined scope. Example: National healthcare provider ID. Multiple identifiers could be provided.		Not required		N		just in requirement for MD, recipient, patient, Reviewing doctor,
A.1.4.4	Recipient organisation	The healthcare provider organisation information.		Not required		N		just in requirement for MD, recipient, patient, Reviewing doctor,
A.1.4.5	Address	Mailing and home or office addresses. The addresses are always sequences of address parts (e.g. street address line, country, postcode, city) even if postal address formats may vary depending on the country. An address may or may not include a specific use code; if this attribute is not present it is assumed to be the default address useful for any purpose.		Not required		N		just in requirement for MD, recipient, patient, Reviewing doctor,



A.1.4.6	Country	Country of the intended recipient as part of the address.	ISO 3166	Not required		N		just in requirement for MD, recipient, patient, Reviewing doctor,
A.1.4.7	Telecom	Telecommunication contact information (addresses) associated to a person, such as phone number, email, or messaging service. Multiple telecommunication addresses might be provided.		Not required		N		just in requirement for MD, recipient, patient, Reviewing doctor,
A.1.5	Author (by whom the could be provided.	Hospital discharge report was/were authore	ed). Multiple authors	Required				
A.1.5.1	Author identifier	The health professional identifier that will allow addressing recipients within a national or international data exchange infrastructure, such as the licence or registration number. In case when the recipient is not a health professional, e.g. patient, appropriate personal identifier should be used.		Required	1:1	s		
A.1.5.2	Author name	Person name [the structure of the name will be the same as for the patient (given name, family name / surname)].		Required	1:1	Υ		
A.1.5.3	Author organisation ID	The healthcare provider organisation identifier. Identifier that is unique within a defined scope. Example: National healthcare provider ID. Multiple identifiers could be provided.		Required	1:1	S		
A.1.5.4	Author organisation	The healthcare provider organisation information.		Required	1:1	Υ		
A.1.5.5	Date Time	Date and time of the last modification of the document by its Author.	ISO 8601	Required	1:1	S		
A.1.6	Attester (multiple atte	esters could be provided)		Not required				
A.1.6.1	Attester identifier	The health professional identification number. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID such as the licence or registration number.		Not required		N		Author = Attester



		Person name [the structure of the name						Author =
A.1.6.2	Attester name	will be the same as for the patient (given		L	Not required	N		Attester
		name, family name / surname)].						
		The healthcare provider organisation identifier. Identifier that is unique within						
A.1.6.3	Attester organisation	a defined scope. Example: National		1	Not required	N		Author =
	ID	healthcare provider ID. Multiple						Attester
		identifiers could be provided.						
A.1.6.4	Attester organisation	The healthcare provider organisation			Not required	N		Author =
7	<u> </u>	information.		<u>'</u>	Totrequired	.,		Attester
A.1.6.5	Approval date and time	Date and time of the approval of the document by Attester.	ISO 8601	ı	Not required	N		Author = Attester
		he person taking responsibility for the med	ical content of the					Attester
A.1.7	document)	the person taking responsibility for the mea	ical content of the	1	Not required			
		The health professional identification						
		number. Either an internal identifier						
	Legal authenticator	assigned by a healthcare provider			Mark and a day of			Authenticator =
A.1.7.1	identifier	institution or (preferably) a national health professional ID such as the licence		ľ	Not required	N		NCZI
		or registration number. Multiple						
		identifiers could be provided.						
	Legal authenticator	Person name [the structure of the name						Authenticator =
A.1.7.2	name	will be the same as for the patient (given		1	Not required	N		NCZI
	- Indirect	name, family name / surname)].						
		The healthcare provider organisation identifier. Identifier that is unique within						
A.1.7.3	Legal authenticator	a defined scope. Example: National			Not required	N		Authenticator =
7	organisation ID	healthcare provider ID. Multiple		•	Totrequired	.,		NCZI
		identifiers could be provided.						
A.1.7.4	Legal authenticator	The healthcare provider organisation			Not required	N		Authenticator =
7.1.7.4	organisation	information.		<u> </u>	vocrequired			NCZI
A.1.7.5	Authentication date and time	Date and time when the document was authorised.	ISO 8601	N	Not required	N		Authenticator = NCZI
A.1.8	Document metadata	authoriseu.		N	Not required			INCZI
7110	- Document metadata			•	totrequired			no documents
A 1 0 1	Danimant ID	Hainus identifies of the decument			Natural in a	C		(no
A.1.8.1	Document ID	Unique identifier of the document		l l	Not required	S		attachments),
								just data
		I de la Cifra de la constitución						no documents
A.1.8.2	Document type	Identifies the type of document at hand,	LOINC		Not required	S		(no
		e.g. Hospital discharge report.						attachments), just data
								Just uata



			I						1
A.1.8.3	Document status	The status of the Hospital discharge report. E.g., preliminary, final.	hl7:CompositionStat us		Not required		S		no documents (no attachments), just data
A.1.8.4	Report date and time	Date and time of the Hospital discharge report creation.	ISO 8601		Not required		S		no documents (no attachments), just data
A.1.8.5	Document title	Document title, fix value "Hospital discharge report".			Not required		S		no documents (no attachments), just data
A.1.8.6	Report custodian	Organisation that is in charge of maintaining the report [this element will include organisation ID, name, address etc., as other elements describing organisations].			Not required		S		no documents (no attachments), just data
A.1.8.7	Confidentiality	Level of confidentiality of the document. Implicit value is normal.	hl7:Confidentiality		Not required		S		no documents (no attachments), just data
A.1.8.8	Language	Language in which the document is written. Language is expressed by the ISO language code.	ISO 639		Not required		N		no documents (no attachments), just data
A.1.8.9	Version	Version of the document			Not required		S		no documents (no attachments), just data
HOSPITAL D	ISCHARGE REPORT BOD	Υ							
A.2.0	Hospital Discharge Rep	ort in its narrative form		Core	Required	1:1	Υ		
A.2.1	Advance directives				Not required				
A.2.1.1	Living will	Only directives being expressed during current inpatient stay. Multiple records of living wills could be provided.			Not required				
A.2.1.1.1	Date and time	The date and time on which the living will was recorded.	ISO 8601		Not required		N		
A.2.1.1.2	Туре	Type of a living will, e.g. Do not resuscitate, donorship statement, power of attorney etc.	SNOMED CT		Not required		N		
A.2.1.1.3	Comment	Comment on the living will.			Not required		N		
A.2.1.1.4	Related conditions		ICD-10*		Not required		N	1	



		The problem or disorder to which the	SNOMED CT						
		living will applies. Multiple fields could be	Orphacode if rare						
		provided.	disease is diagnosed						
		Scanned source document with the living							
A.2.1.1.5	Living will document	will and the patient's signature, such as a			Not required		N		
		PDF.							
A.2.2	Alerts			Core	Optional				
	AU	A record of allergies and intolerances (prin	marily to be used for						
A.2.2.1	Allergy and Intolerance	new allergies or intolerances that occurre stay).	d during the hospital	Core	Optional				
A.2.2.1.1	Allergy description	Textual description of the allergy or intolerance		Core	Optional	0:N	Υ		
A.2.2.1.2	Type of propensity	This element describes whether this condition refers to an allergy, non-allergy intolerance, or unknown class of intolerance (not known to be allergy or intolerance)	SNOMED CT		Optional	0:N	N		
A.2.2.1.3	Allergy manifestation	Description of the clinical manifestation of the allergic reaction including date of manifestation and severity. Example: anaphylactic shock, angioedema (the clinical manifestation also gives information about the severity of the observed reaction). Multiple manifestations could be provided.	SNOMED CT	Core	Optional	0:N	Y		
A.2.2.1.4	Severity	Severity of the clinical manifestation of the allergic reaction.	SNOMED CT		Optional	0:N	N		
A.2.2.1.5	Criticality	Potential risk for future life-threatening adverse reactions when exposed to a substance known to cause an adverse reaction.	SNOMED CT		Not required		N		
		Date of onset of allergy, e.g., date of the	ISO 8601						
A.2.2.1.6	Onset date	first observation of the reaction. Could be also expressed using a date, partial date or life period (childhood, adolescence).	SNOMED CT (Age group)		Not required		Y		
		Date of resolution of the allergy (e.g.	ISO 8601						
A.2.2.1.7	End date	when the clinician deemed there is no longer any need to track the underlying condition)	SNOMED CT (Age group)		Not required		N		
A.2.2.1.8	Status	Current status of the allergy or intolerance, for example, whether it is	Active, resolved,		Not required		N		



		Lastin to contain a contain				I	1			
		active, in remission, resolved, and so on								
A.2.2.1.9	Certainty	Assertion about the certainty associated with a propensity, or potential risk, of a reaction to the identified substance. Diagnostic and/or clinical evidence of condition.	SNOMED CT		Not required		N			
		A specific allergen or other	SNOMED CT						1.3.158.00165387.100.10.	
A.2.2.1.10	Agent or Allergen	agent/substance (drug, food, chemical agent, etc.) to which the patient has an	ATC (IDMP / EMA SPOR	Core	Optional		S	Nation al code system	158 1.3.158.00165387.100.10.	
		adverse reaction propensity.	SMS)					Зузсен	208	
A.2.2.2	Medical alerts (relevan	nt for the respective hospital stay)		Core	Optional					
		A warning, other than included in allergies. The warning can be entered in code	SNOMED CT							
		(there are codes for frequently used alerts) but seeing the dynamic nature of the warnings, these alerts will often be entered as free text.	LOINC							
		Any clinical information that is imperative to know so that the life or health of the patient does not come under threat.								
	Healthcare alert	Example 1: the patient has a rare disease that requires special treatment								
A.2.2.2.1	description	Example 2: Airway Alert / Difficult Intubation		Core	Optional	0:N	Υ			
		Example 3: Diagnoses such as malignant hyperthermia, porphyria, and bleeding disorders; special treatments like anticoagulants or immunosuppressants; implanted devices.								
		Example 4: transplanted organs illustrate other information that has to be taken into account in a healthcare contact.								
		Example 5: participation in a clinical trial that has to be taken into account in a healthcare contact.								
A.2.3	Encounter			Core	Required					
A.2.3.1	Encounter type	The type of the encounter whether inpatient or short stay encounter.	hl7v3:ActEncounter Code		Not required		N			
A.2.3.2	Encounter note	A narrative description of the encounter course.			Not required		Υ			



A.2.3.3	Admission			Core	Required				
A.2.3.3.1	Admission urgency	Admission type, either emergency or planned	hl7:v3- xEncounterAdmissio nUrgency	Core	Required	1:1	Υ		
A.2.3.3.2	Admission date	Admission date and time.	ISO 8601	Core	Required	1:1	S		
A.2.3.3.3	Admitting professional ID	The health professional identification number. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID such as the licence or registration number.			Required	1:1	S		
A.2.3.3.4	Admitting professional name	Person name [the structure of the name will be the same as for the patient (given name, family name / surname)].			Required	1:1	Y		
A.2.3.3.5	Admitting organisation ID	The healthcare provider organisation identifier.			Required	1:1	s		
A.2.3.3.6	Admitting organisation	The healthcare provider organisation information.		Core	Required	1:1	Υ		
A.2.3.3.7	Admit Source	From where the patient was admitted (e.g. physician referral, transfer).	HI7:admit-source		Required	1:1	Υ		
A.2.3.3.8	Referring professional ID	The health professional identification number. Either an internal identifier assigned by a healthcare provider institution or (preferably) a national health professional ID such as the licence or registration number.			Not required		S		
A.2.3.3.9	Referring professional name	Person name [the structure of the name will be the same as for the patient (given name, family name / surname)].			Not required		Υ		
A.2.3.3.10	Referring organisation ID	The healthcare provider organisation identifier.			Not required		Υ		
A.2.3.3.11	Referring organisation	The healthcare provider organisation information.			Not required		S		
A.2.3.4	Admission reason			Core	Required				
A.2.3.4.1	Admission reason	Reason or reasons for admission, e.g. Problem, procedure or finding.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed	Core	Required	1:1	S		
A.2.3.4.2	Admission reason comment	Explanation of the reason for the encounter.		Core	Required	1:1	Υ		
A.2.3.4.3	Admission legal status	Legal status/situation at admission. The legal status indicates the basis on which	SNOMED CT		Required	1:1	N		



		the patient is staying in a healthcare							
		organisation. This can be either voluntary							
		or involuntary, however the legal status							
		is always determined by a court. A							
		patient can also receive healthcare based							
		on a forensic status. (voluntary,							
		involuntary, admission by legal							
		authority).							
A.2.3.5	Discharge			Core	Required				
A.2.3.5.1	Discharge date	Discharge date and time	ISO 8601	Core	Required	1:1	S		
A.2.3.5.2	Discharge destination type	Type of location to which the patient will go after the encounter. E.g. home, hospital, nursing home, left against medical advice etc.	hl7.discharge- disposition	Core	Not required		N		default by Author.
A.2.3.5.3	Destination location	The location/organisation to which the patient will go after the encounter. Name, address and telecommunication contact.		Core	Not required		N		default by Author.
A.2.3.6	Location - All locations the hospital.	/departments where the patient stayed (w	as boarded) within	Core	Not required				
A.2.3.6.1	Period	Time period during which the patient was present at the location		Core	Not required		N		just filan discharge
A.2.3.6.2	Organisation Part ID	The organisation's part identifier.			Not required		N		just filan discharge
A.2.3.6.3	Organisation Part Name	Full name of the organisation part, e.g. Name of the department		Core	Not required		N		just filan discharge
A.2.3.6.4	Organisation Part Details	Address, contact names and contact details, specialty of the organisation part.	SNOMED CT	Core	Not required		N		just filan discharge
A.2.4	Admission evaluation - relevant to ensure con	 Admission status should be reported exce tinuity of care. 	ptionally only if it is		Required				
A.2.4.1	Objective findings				Required				
A.2.4.1.1	Date and time	Date and time of the examination	ISO 8601		Not required		S		
		Observation of Body weight and height of	he patient, BMI,						
	A	circumference of head, waist, hip, limbs an	d skin fold thickness.						
A.2.4.1.3	Anthropometric observations	Result of the observation includes text, nur	meric and coded		Required	1:1	Υ		
	Observations	results of the measurement including meas	surement units.						
		Multiple observations could be provided.							
		Observation details include code that	SNOMED CT						
		identifies observation, specification of	LOINC						
A.2.4.1.3.1	Observation details	the observed body structure or			Not required		Υ		
		specimen, date and time of the specimen	ISO 8601						
		collection, observation method or							



		protocol used and other aspects of the						
		observation						
		Result of the observation including						
		numeric and coded results of the						
		measurement, details about how the						
A.2.4.1.3.2	Observation result	tests were done to get the result values,	UCUM (for units of	Not required		l _v		
A.2.4.1.3.2	Observation result	information about reference ranges and	measurement)	Not required		'		
		result interpretation. Content of the						
		observation result will vary according to						
		the type of the observation.						
		Vital signs observation:						
A.2.4.1.4	Vital signs	 Recommended: Pulse rate, respiratory ra 	ite, systolic and	Required				
A.2.4.1.4	Vitai sigiis	diastolic blood pressure with site informati	ion	Required				
		Optional: 02 saturation, temperature, pa	in (scale),					
A.2.4.1.4.1	Result description	Narrative representation of the		Required	1:1	γ		
A.Z.4.1.4.1	Result description	observation result and findings.		Required	1.1	T		
		Observation details include code that						
		identifies observation, specification of						
		the observed body structure or	SNOMED CT LOINC					
A.2.4.1.4.2	Observation details	specimen, date and time of the specimen	ISO 8601	Not required		N		
		collection, observation method or	150 0001					
		protocol used and other aspects of the						
		observation.						
		Result of the observation including						
		numeric and coded results of the						
		measurement, details about how the	UCUM					
A.2.4.1.4.3	Observation result	tests were done to get the result values,	(measurement	Not required		N		
		information about reference ranges and result interpretation. Content of the	units)					
		observation result will vary according to						
		the type of the observation.						
		Physical examination is the process of						
		evaluating objective anatomical findings.						
		It is typically the first diagnostic measure						
		performed after taking the patient's						
		history, which allows an initial						
A.2.4.1.5	Physical examination	assessment of symptoms and is useful for		Required				
		determining the differential diagnoses						
		and further steps. Physical examination						
		can be performed through observation,						
		palpation, percussion, and auscultation.						
		1 1 /1 /						



	1	T						
		A narrative description of the						
A.2.4.1.5.1	Observation Note	observation. It should be structured by		Required	1:1	Y		
		the organ system (e.g. head, neck, body,						
		arms,)						
	Functional status							
		be assessed in several different ways, usually						
	1 .	rform basic activities of daily living (ADL), wh						
A.2.4.2		eeding, and toileting and instrumental activit		Not require	ed			
		activities such as cooking, shopping, and ma	naging one's own					
	affairs.							
	For details see: https:/	/paciowg.github.io/functional-status-ig/						
		Need for the patient to be continuously						
A.2.4.2.1	Description	assessed by third parties; functional		Not require	²⁴	N		
7.2.7.2.1	Description	status may influence decisions about how		Not require	.u	'		
		to plan and administer treatments						
A.2.4.2.2	Onset Date	Onset date of a condition	ISO 8601	Not require	ed	N		
	Functional							
A.2.4.2.3	assessment	Description of the functional assessment	ICF	Not require	ed	N		
	description							
A.2.4.2.4	Functional	Date of the functional assessment	ISO 8601	Not require	ad	N		
7.2.4.2.4	assessment date	Date of the functional assessment	150 0001	Not require	·u	IN		
A.2.4.2.5	Functional	Functional assessment result value	ICF	Not require	ad	N		
	assessment result			Not require	.u	IN .		
A.2.6		include information about provenance of the	ne information)	Optional				
A.2.6.1	Medical history			Optional				
		A list of conditions of a patient that the pat	tient suffered in the					
		past or still suffers. Unlike diagnostic sumn	nary, medical history					
		is not only a list of problems, but could con						
		description of the condition and its progres	ss, details about					
A.2.6.1.1	History of problems	treatment including medication and patien	•	Optional				
A.2.0.1.1	history or problems	treatment. Past problem section (unlike th		Орципа				
		patient summary) should include only cond						
		important for continuity of care. This section	on, if provided,					
		complements the diagnostic summary sect	ion of the discharge					
		report.						
A.2.6.1.1.1	Problem description	Problem specification		Optional	0:N	Υ		
			ICD-10*					
		Problem details include code that	SNOMED CT					
A.2.6.1.1.2	Problem details	identifies problem, specification of the	Orphacode if rare	Not require	ad l	s		
A.Z.U.I.I.Z	1 Toblem details	body structure, laterality, and other	disease is diagnosed	Not require	.u	3		
		aspects of the problem.	IPS Absent and					
			Unknown Data					
				•		•		



			ICD-0-3					
A.2.6.1.1.3	Onset date	Onset date of the problem/condition	ISO 8601	Not required		S		
A.2.6.1.1.4	End date	The date or estimated date that the condition resolved or went into remission.	ISO 8601	Not required		N		
A.2.6.1.1.5	Clinical status	Status of the condition/problem (active, resolved, inactive,)	hl7:condition- clinical	Not required		S		
A.2.6.1.1.6	Resolution circumstances	Describes the reason for which the status of the problem changed from current to inactive (e.g. surgical procedure, medical treatment, etc.). This field includes "free text" if the resolution circumstances are not already included in other fields such as surgical procedure, medical device, etc., e.g. hepatic cystectomy (this will be the resolution circumstances for the problem "hepatic cyst" and will be included in surgical procedures).		Optional	0:N	N		
A.2.6.1.1.7	Severity	A subjective assessment of the severity of the condition as evaluated by the clinician.	SNOMED CT	Not required		N		
A.2.6.1.1.8	Stage	Stage/grade, usually assessed formally using a specific staging/grading system.	e.g. TNM, ICD-O-3	Not required		N		
A.2.6.1.2	Devices and Implants	Devices and Implants		Optional				
A.2.6.1.2.1	Device and implant description	Describes the patient's implanted and external medical devices and equipment upon which their health status depends. Includes devices such as cardiac pacemakers, implantable fibrillator, prosthesis, ferromagnetic bone implants, etc. of which the HP needs to be aware.	IPS Absent and Unknown Data	Optional	0:N	Y		
A.2.6.1.2.2	Device ID	Normalised identifier of the device instance such as UDI according to REGULATION (EU) 2017/745		Not required		S		
A.2.6.1.2.3	Implant date	The date and time the device was implanted or when its use began.	ISO 8601	Optional	0:N	S		
A.2.6.1.2.4	End date	Date and time when the device was explanted from the patient or the external device was no longer in use; likewise when the device is planned to be explanted	ISO 8601	Not required		N		
A.2.6.1.2.5	Reason		ICD-10	Not required		N		



			CNOMED CT				
		The medical reason for use of the medical device.	SNOMED CT Orphacode if rare disease is diagnosed				
A.2.6.1.3	History of procedures	Historical procedures performed on or for a patient, relevant for the current encounter. Examples include surgical procedures, diagnostic procedures, endoscopic procedures, biopsies, counselling, physiotherapy, personal support services, adult day care services, etc.	uisease is uiagiioseu	Not required			
A.2.6.1.3.1	Procedure code	Procedure code	SNOMED CT LOINC, NPU (for laboratory procedures) IPS Absent and Unknown Data	Not required	N		
A.2.6.1.3.2	Procedure description	Narrative description of the procedure		Not required	N		
A.2.6.1.3.3	Body site	Procedure target body site and laterality	SNOMED CT	Not required	N		
A.2.6.1.3.4	Procedure date	Date and time when procedure was performed	ISO 8601	Not required	N		
A.2.6.1.3.5	Procedure reason	The coded reason why the procedure was performed. This may be a coded entity or may simply be present as text.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed	Not required	N		
A.2.6.1.3.6	Outcome	The outcome of the procedure - did it resolve the reasons for the procedure being performed? Applicable mainly on surgical procedures.	SNOMED CT	Not required	N		
A.2.6.1.3.7	Focal device	A reference to the device or devices that is implanted, removed or otherwise manipulated (calibration, battery replacement, fitting a prosthesis, attaching a wound-vac, etc.) as a focal portion of the Procedure.		Not required	N		
A.2.6.1.4	Vaccination	Vaccination history of the patient.		Optional			
A.2.6.1.4.1	Disease or agent targeted	Disease or agent that the vaccination provides protection against	ICD-10* SNOMED CT	Not required	N		
A.2.6.1.4.2	Vaccine/prophylaxis	Generic description of the vaccine/prophylaxis or its component(s)	SNOMED CT ATC (IDMP/ EMA SPOR SMS)	Not required	N		



A.2.6.1.4.4	Vaccine medicinal product	Medicinal product name		Optional	0:N	N		
A.2.6.1.4.5	Marketing Authorisation Holder	Marketing Authorisation Holder or manufacturer (Identifier and name)	EMA's Organisations Management Service (EMA SPOR OMS)	Optional	0:N	N		
A.2.6.1.4.6	Number in a series of vaccinations / doses	Order in the vaccination course.		Not required		N		
A.2.6.1.4.7	Date of vaccination	The date and time when the vaccination was administered	ISO 8601	Optional	0:N	N		
A.2.6.1.4.8	Next vaccination date	The date when the vaccination is planned to be given/repeated (e.g. next dose)	ISO 8601	Not required		N		
A.2.6.1.5	Epidemiological history	Travel history and infectious contacts		Not required				
A.2.6.1.5.1	Infectious contacts	Infectious contacts of the patient		Not required				
A.2.6.1.5.1 .1	Time period	A date and duration or date time interval of contact. Partial dates are allowed.	ISO 8601	Not required		N		
A.2.6.1.5.1 .2	Infectious agent	Information about a suspected infectious agent or agents the person was exposed to.	ICD-10* (chapter 1) SNOMED CT	Not required		N		
A.2.6.1.5.1 .3	Proximity	Proximity to the source/carrier of the infectious agent during exposure. Proximity could be expressed by text, code (direct, indirect) or value specifying distance from the InfectiousAgentCarrier.	UCUM (measurement units)	Not required		N		
A.2.6.1.5.1 .4	Country	Country in which the person was potentially exposed to an infectious agent.	ISO 3166	Not required		N		
A.2.6.1.5.1 .5	Additional information	A textual note with additional information about infectious contact.		Not required		N		
A.2.6.1.5.2	Travel history	Travel history reported by the patient. Multiple records could be provided.		Not required				
A.2.6.1.5.2 .1	Time period	Start and end date or end date and duration of stay in a country. Partial dates are allowed.	ISO 8601	Not required		N		
A.2.6.1.5.2 .2	Country visited	A country visited by the patient.	ISO 3166	Not required		N		
A.2.6.1.5.2 .3	Comment	Relevant notes on the travel stay.		Not required		N		
A.2.6.2	Family history	Information about serious illnesses in close blood relatives with known or		Not required		Υ		textual description



		suspected genetic potential or with					
		possible impact on patient care.					
		The family relation between the related					
A.2.6.2.1	Patient relationship	person and the patient.	hl7:v3-RoleCode	Not required	N		
A.2.6.2.2	Date of birth	Full or partial date of birth	ISO 8601	Not required	N		
A.2.6.2.3	Age or date of death	Age or date of the death of the family member.	ISO 8601	Not required	N		
			ICD-10*				
A.2.6.2.5	Condition	Medical problems this person suffers or	SNOMED CT	Not required	N		
A.Z.0.Z.3	Condition	suffered.	Orphacode if rare	Not required	IN		
			disease is diagnosed				
			ICD-10*				
A.2.6.2.6	Cause of death	Information about disease or condition	SNOMED CT	Not required	N		
A.2.0.2.0	Cause of death	that was the main cause of death.	Orphacode if rare	Not required	IN		
			disease is diagnosed				
A.2.6.3	Social determinants of health	Information about social determinants of health.		Not required			
A.2.6.3.1	Participation in society	Participation in society details.		Not required			
A.2.6.3.1.1	Work situation	Work Situation describes the extent to which and in what way the patient participates in the workforce. Work is meant in the broadest sense of the word: activities that contribute to the person themselves, their environment or society. This includes both paid and unpaid work.		Not required	N		
A.2.6.3.1.2	Hobby	An activity the patient enjoys doing in their free time.		Not required	N		
A.2.6.3.1.3	Social network	A description of the patient's social network, such as family, neighbours and friends.		Not required	N		
A.2.6.3.2	Education			Not required			
A.2.6.3.2.1	Education level	Indication of the highest level of education achieved.	hl7:v3.EducationLev el	Not required	N		
A.2.6.3.2.2	Comment	If deemed relevant, a specification of the degree program can be provided by means of an explanation (e.g.: patient is in medical school).		Not required	N		
A.2.6.3.3	Living situation	Household type and other related living situation information.		Not required			
A.2.6.3.3.1	House type	Type of home the patient lives in.	SNOMED CT	Not required	N		



	•	_					
		Adaptions present in the home that have been made in the context of the illness or					
A.2.6.3.3.2	Home adaption	disability to make the functioning of the	SNOMED CT	Not required	l _N		
A.2.0.3.3.2	Tionie adaption	patient safer and more comfortable and	SINOIVILD CI	Not required	IN .		
		to enable independent living. Multiple					
		data elements could be provided.					
		Conditions that affect the accessibility of					
A.2.6.3.3.3	Living conditions	the home or the stay in the home.	SNOMED CT	Not required	N		
		Multiple data elements could be					
		provided.					
A.2.6.3.4	Family situation	Family situation details.		Not required			
A.2.6.3.4.1	Comment	A comment on the family situation.		Not required	N		
		The family composition describes the					
	F	patient's home situation and the form of	CNIONAED CT	Not so with d			
A.2.6.3.4.2	Family composition	cohabitation.	SNOMED CT	Not required	N		
		A family can consist of one or more people.					
		A person's marital status according to the	hl7: v3-				
A.2.6.3.4.3	Marital status	terms and definition in the national civil	MaritalStatus	Not required	S		
		code.					
		The number of children the patient has.					
	No contract of all the con-	Children in the context of this		Not so with d			
A.2.6.3.4.4	Number of children	information model include step children,		Not required	N		
		foster children, biological and adopted children.					
	Number of children	The number of children living at home					
A.2.6.3.4.5	at home	with the patient.		Not required	N		
A.2.6.3.4.6	Child details	Child age, co-living status and comment.		Not required	N		
		Multiple child details could be provided.		'			
A.2.6.3.4.7	Care responsibility	The activities the patient carries out to care for a dependent family member.		Not required	N		
A.2.6.4	Use of substances			Not required			
		Alcohol consumption by the patient.					
A.2.6.4.1	Alcohol use	Multiple records on alcohol use could be		Not required			
		provided.					
A.2.6.4.1.1	Status	The status of the patient's alcohol use.	SNOMED CT	Not required	N		
		Period of use and amount (The extent of					
A.2.6.4.1.2	Period and quantity	the patient's alcohol use in units of		Not required	N		
		alcohol per time period.)					
A.2.6.4.1.3	Comment	Textual comment.		Not required	N		



		Represent smoking or tobacco habits.							
A.2.6.4.2	Tobacco use	Multiple records on tobacco use could be			Not required		N		
A.Z.0.4.Z	Tobacco use	provided.			Not required		IN .		
A.2.6.4.2.1	Status	The status of the patient's tobacco use.	SNOMED CT		Not required		N		
7	Status	Period of use and amount (The extent of	SITORIED CT		Hotrequired		1.7		
A.2.6.4.2.2	Period and quantity	the patient's tobacco use in units of			Not required		N		
7	Terrou arra quartity	alcohol per time period.)					''		
A.2.6.4.2.3	Comment	Textual comment.			Not required		N		
	B	Consumption of drugs and other							
A.2.6.4.3	Drug consumption	substances (in terms of abuse).			Not required				
A.2.6.4.3.1	Status	The status of the patient's drug use.	SNOMED CT		Not required		N		
A.2.6.4.3.2	Period and quantity	Period of use and amount.			Not required		N		
A.2.6.4.3.3	Drug or medication type	Type of the drug consumption	SNOMED CT		Not required		N		
A.2.6.4.3.4	Route of administration	Route or routes of administration	EDQM Standard Terms		Not required		N		
A.2.6.4.3.5	Comment	Textual comment			Not required		N		
A.2.7	Course of hospitalisati	on (Hospital stay)		Core	Required				
A.2.7.1	Diagnostic summary	All problems/diagnoses that affect care du case or are important to be recorded to en care. The diagnostic summary differentiate the international recommendation, betwe during hospital stay and other (untreated) problems are problems that were the subj therapy, nursing, or (continuous) monitorin hospitalisation. Furthermore problems cout three categories: problems present on additions acquired during hospital stay (Hata cannot be classified as being of any of diagnostic summary contains all conditions recognised at the end of hospitalisation, at This section contains concise, well specifie of problems. Problems are ordered by imp problems first) during hospital stay. Descri might be completed with additional details history section and/or in the Synthesis section.	issure continuity of es, in accordance with en problems treated problems. Treated ect of diagnostics, ing during the ald be divided into mission (POA), IAC) and problems the two (N/A). The es as they were fter all examinations. d, codeable, summary ortance (main ption of the problem is in the medical	Core	Required				
A.2.7.1.1	Problem description	Problem specification in narrative form		Core	Required	1:1	Υ		freetext
A.2.7.1.2	Problem details	Problem details include code that identifies problem, specification of the body structure, laterality, and other aspects of the problem.	ICD-10* SNOMED CT ICD-O-3 Orphacode if rare disease is diagnosed	Core	Not required		S		



			IPS Absent and					
			Unknown Data					
A.2.7.1.3	Onset date	Onset date of a problem/condition	ISO 8601	Core	Not required	S		
A.2.7.1.4	End date	The date or estimated date that the condition resolved or went into remission.	ISO 8601		Not required	S		
A.2.7.1.5	Category	Category of the problem allows flagging for conditions acquired during hospital stay. - Present on admission [POA]) - Hospital acquired condition [HAC] Not applicable or unknown		Core	Not required	Υ		
A.2.7.1.6	Treatment class	Class of the problem (treated, other) in relation to the hospital encounter. Treated problems were treated or affected provisioning of care (diagnostics, therapy, nursing, monitoring) during the hospital encounter. At least one problem should be marked as Treated. Other problems are recorded only if they are important for continuity of care (after discharge).	Treated, Other	Core	Not required	Υ		
A.2.7.1.7	Clinical status	Status of the condition/problem (active, resolved, inactive,)	hl7:condition- clinical		Not required	S		
A.2.7.1.8	Resolution circumstances	Describes the reason for which the status of the problem changed from current to inactive (e.g. surgical procedure, medical treatment, etc.). This field includes "free text" if the resolution circumstances are not already included in other fields such as surgical procedure, medical device, etc., e.g. hepatic cystectomy (this will be the resolution circumstances for the problem "hepatic cyst" and will be included in surgical procedures).			Not required	Y		freetext
A.2.7.1.9	Severity	A subjective assessment of the severity of the condition as evaluated by the clinician.	hl7:condition- severity		Not required	Υ		
A.2.7.1.10	Stage	Stage/grade usually assessed formally using a specific staging/grading system. Multiple assessment systems could be	e.g. TNM		Not required	N		



A.2.7.2	Significant procedures	Significant surgical and non-surgical procedures performed during hospitalisation which are significant for continuity of care, e.g. surgeries and other "instrumental" interventions (endoscopic, intravascular), chemotherapy, radiotherapy, purification methods (dialysis, hemoperfusion), circulation support methods (counterpulsation, etc.), administration of blood derivatives or others. This section does not include purely diagnostic procedures (MRI, CT, etc.). If no significant performance has been performed, this fact must be explicitly stated using the IPS Absent and Unknown Data.		Core	Not required			
A.2.7.2.1	Procedure code	Procedure code	SNOMED CT IPS Absent and Unknown Data	Core	Not required	N		
A.2.7.2.2	Procedure description	Narrative description of the procedure		Core	Not required	N		
A.2.7.2.3	Body site	Procedure target body site and laterality	SNOMED CT		Not required	N		
A.2.7.2.4	Procedure date	Date and time when procedure was performed	ISO 8601	Core	Not required	N		
A.2.7.2.5	Procedure reason	The coded reason why the procedure was performed. This may be a coded entity or may simply be present as text.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed		Not required	N		
A.2.7.2.6	Outcome	The outcome of the procedure - did it resolve the reasons for the procedure being performed?	SNOMED CT		Not required	N		
A.2.7.2.7	Complication	Any complications that occurred during the procedure, or in the immediate post-performance period. These are generally tracked separately from the procedure description, which will typically describe the procedure itself rather than any 'post procedure' issues.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed		Not required	N		
A.2.7.2.8	Focal device	A reference to the device or devices that is/are implanted, removed, or otherwise manipulated (calibration, battery		Core	Not required	N		



		replacement, fitting a prosthesis,						
		attaching a wound-vac, etc.) as a focal						
		portion of the Procedure.						
		Implants and used medical devices that						
		affected or may affect the provision of						
		health services (diagnosis and						
	Medical devices and	treatment). Also medical devices						
A.2.7.3	implants	explanted, or its use was stopped during		Core	Not required			
	impiants	hospitalisation. If the section is blank, the						
		reason must be explicitly stated using the						
		IPS Absent and Unknown Data coding						
		system						
		Describes the patient's implanted and	SNOMED CT EMDN					
		external medical devices and equipment						
	De les estimates	upon which their health status depends.						
A.2.7.3.1	Device and implant	Includes devices such as cardiac	IPS Absent and	Core	Not required	Υ		
	description	pacemakers, implantable fibrillator,	Unknown Data		•			
		prosthesis, ferromagnetic bone implants,						
		etc. of which the HP needs to be aware.						
		Normalised identifier of the device						
A.2.7.3.2	Device ID	instance such as UDI according to			Not required	S		
		REGULATION (EU) 2017/745			·			
		The date and time the device was	100.0004					
A.2.7.3.3	Implant date	implanted or when its use began.	ISO 8601	Core	Not required	S		
		Date and time when the device was						
		explanted from the patient or the						
A.2.7.3.4	End date	external device was no longer in use;	ISO 8601	Core	Not required	N		
		likewise when the device is planned to be			·			
		explanted						
			ICD-10*					
4 2 7 2 5	D	The medical reason for use of the	SNOMED CT		Nint annuised	6		
A.2.7.3.5	Reason	medical device.	Orphacode if rare		Not required	S		
			disease is diagnosed					
		Selected drug treatment during hospitalisa						
		products that were administered during ho						
		whose administration has already been dis						
		discharge. Only products which are imports						
A.2.7.5	Pharmacotherapy	care (antibiotics other than completely rou		Core	Not required			
		in high doses, etc.) will be listed. Products						
		will continue after discharge will be also re						
		Medication summary section.						
		ivicultution summary section.						



		Madisipal products the administration of	which was started					
		Medicinal products, the administration of						
		during hospitalisation, but is also recomme	• .					
		will be listed in the summary table in the re	ecommendation					
		section.	ICD 40*					
		The reason why the medication is or was	ICD-10*					
A.2.7.5.1	Medication reason	prescribed or used. It provides a link to	SNOMED CT		Not required	Υ		
		the Past or current health conditions or	Orphacode if rare		•			
		problems that the patient has had or has.	disease is diagnosed					
A.2.7.5.2	Code	Product code	IDMP	Core	Not required	Υ		
		Indication intended use as: prevention or						
A.2.7.5.3	Intended use	treatment Example: prophylaxis,			Not required	Υ		
		treatment, diagnostic, anaesthesia.						
		Brand name if biological medicinal						
A.2.7.5.4	Brand name	product or when justified by the health		Core	Not required	v		
A.2.7.3.4	Dianu name	professional (ref. Commission Directive		Core	Not required	'		
		2012/52/EU)						
		Substance that alone or in combination						
		with one or more other ingredients	ATC (IDMP / EMA					
A.2.7.5.5	Active ingredient list	produces the intended activity of a	SPOR SMS)		Not required	Υ		
		medicinal product. Example:	SPOR SIVIS)					
		"paracetamol"						
		The content of the active ingredient	UCUM					
		expressed quantifiably per dosage unit,						
A.2.7.5.6	Strength	per unit of volume or per unit of weight,	EDQM Standard		Not required	Υ		
		according to the pharmaceutical dose	terms					
		form. Example: 500 mg per tablet						
	Pharmaceutical dose	The form in which a pharmaceutical	EDQM Standard					
A.2.7.5.7	form	product is presented in the medicinal	Terms		Not required	Υ		
	101111	product package (e.g. tablet, syrup)	1611115					
_		Number of units per intake and		_				
A.2.7.5.8	Decage Begimen	frequency of intake over a specified			Not required	v		
A.Z.7.5.8	Dosage Regimen	duration of time. Example: 1 tablet every			Not required	1		
		24h, for 10 days						
	Doute of	Path by which the pharmaceutical	EDOM Storeday					
A.2.7.5.9	Route of	product is taken into or makes contact	EDQM Standard		Not required	Υ		
	administration	with the body.	Terms					
A 2 7 F 10	Davis d of two stars at	The time interval when the patient was,		Carra	Natura suina d	V		
A.2.7.5.10	Period of treatment	or was not, given the medication.		Core	Not required	Υ		
	6::6:1	Results of significant functional, diagnostic	, and imaging					
A.2.7.6	Significant	examinations to ensure continuity of care,			Not required			
	Observation Results	hospitalisation. Results of examinations or			•			



	delivered should be presented separately from results already								
A.2.7.6.1	Date	delivered. Date and time of the observation	ISO 8601	Core	Notroguired		N		
A.2.7.6.2	Observation status	Status of the observation (e.g. registered, preliminary, final)	hl7:observation- status	Core	Not required Not required		N		
A.2.7.6.3	Result description	Narrative representation of the observation result and findings.	Status	Core	Not required		N		
		Observation details include code that	LOINC						
		identifies observation, specification of	NPU						
	Observation details specimen, date and tir collection, observation	the observed body structure or	SNOMED CT						
A.2.7.6.4		specimen, date and time of the specimen collection, observation method or protocol used and other aspects of the observation.	ISO 8601		Not required		N		
		Result of the observation including	SNOMED CT						
A.2.7.6.5	Observation result	numeric and coded results of the measurement, details about how the tests were done to get the result values, information about reference ranges and result interpretation. Content of the observation result will vary according to the type of the observation.	UCUM (measurement units)	Core	Not required		N		
A.2.7.6.7	Reporter	With certain observation results, e.g. there may also be an interpreter or a person responsible for validation.			Not required		N		
A.2.7.7	This section provides clinical synthesis (e.g. description of reasons and course of hospital stay) clustered by managed conditions, Clinical synthesis may include clinical reasoning (differential diagnostics, explanation of clinical context) in clinically complex conditions.			Core	Not required				
A.2.7.7.1	Problem synthesis	Summary description of the reason and course of hospitalisation for a specific problem.		Core	Not required		N		
A.2.7.7.2	Clinical reasoning	The clinical summary can be concluded with a clinical consideration (diff. diagnosis, explanation of context, etc.) for clinically complex conditions.			Not required		N		
A.2.8	Discharge details (structured information should be provided, however if not available, at least a summary note should be present).				Optional				
A.2.8.1	Objective findings				Optional				
A.2.8.1.1	Date	Date and time of the examination at or before discharge	ISO 8601		Not required		N		



A.2.8.1.3	Anthropometric observations	results of the measurement including measurement units. Multiple observations could be provided.		Core	Not required				
A.2.8.1.3.1	Result description	Narrative representation of the observation result and findings.			Not required		N		
A.2.8.1.3.2	Observation details	Observation details include code that identifies observation, specification of the observed body structure or specimen, date and time of the specimen collection, observation method or protocol used and other aspects of the observation.	SNOMED CT LOINC ISO 8601	Core	Not required		N		
A.2.8.1.3.3	Observation result	Result of the observation including numeric and coded results of the measurement, details about how the tests were done to get the result values, information about reference ranges and result interpretation. Content of the observation result will vary according to the type of the observation.	UCUM (measurement units)	Core	Not required		N		
A.2.8.1.4	Vital signs	Observation of Vital signs: Recommended: systolic and diastolic blocksite of measurement, pulse rate, respirator. Optional: 02 saturation, temperature, pa	ry rate	Core	Optional				
A.2.8.1.4.1	Result description	Narrative representation of the observation result and findings.			Optional	0:N	N		
A.2.8.1.4.2	Observation details	Observation details include code that identifies observation, specification of the observed body structure or specimen, date and time of the specimen collection, observation method or protocol used and other aspects of the observation.	SNOMED CT LOINC ISO 8601	Core	Not required		N		
A.2.8.1.4.3	Observation result	Result of the observation including numeric and coded results of the measurement, details about how the tests were done to get the result values, information about reference ranges and result interpretation. Content of the	UCUM (measurement units)	Core	Optional	0:N	N		



		observation result will vary according to the type of the observation.							
A.2.8.1.5	Physical examination	Physical examination (at discharge) is the process of evaluating objective anatomical findings. Physical examination can be performed through observation, palpation, percussion, and auscultation.		Core	Not required				
A.2.8.1.5.1	Observation Note	A narrative description of the observation. It should be structured by the organ system (e.g. head, neck, body, arms,)		Core	Not required		N		
A.2.8.2	Functional status	Functional status can be assessed in several different ways, usually with a focus on the person's abilities to perform basic activities of daily living (ADL), which include basic self-care such as bathing, feeding, and toileting and instrumental activities of daily living (IADL), which includes activities such as cooking, shopping, and managing one's own affairs. For details see: https://paciowg.github.io/functional-status-ig/		Core	optional				
A.2.8.2.1	Description	Need for the patient to be continuously assessed by third parties; functional status may influence decisions about how to plan and administer treatments		Core	Optional	0:N	N		
A.2.8.2.2	Onset Date	Onset date of a condition	ISO 8601		Not required		N		
A.2.8.2.3	Functional assessment description	Description of the functional assessment	e.g. ICF		Not required		N		
A.2.8.2.4	Functional assessment date	Date of the functional assessment	ISO 8601		Not required		N		
A.2.8.2.5	Functional assessment result	Functional assessment result value	e.g. ICF		Not required		N		
A.2.8.3	Discharge note	Discharge summary note			optional		Υ		freetext
A.2.9		commendations after discharge.		Core	optional				
A.2.9.1	Care plan	Care plan after discharge. Multiple care pla	ns could be provided.	Core	optional				
A.2.9.1.1	Title	Human-friendly name for the care plan (e.g. Hip replacement care plan)			Not required		Υ		freetext
A.2.9.1.2	Addresses	Identifies the conditions/problems/concerns/diagnoses /etc. whose management and/or mitigation are handled by this plan. This element provides a linkage to the conditions recorded in the diagnostic summary section.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed		Not required		N		



A.2.9.1.3 Description	freetext
A.2.9.1.4 Plan Period intended to) come into effect and end. A.2.9.1.5 Other details Other structured and coded details, care team, goals to be achieved. A.2.9.1.6 Activity Actions to occur as part of the plan. A.2.9.1.6.1 Kind Activity Actions to occur as part of the plan. A.2.9.1.6.2 Kind Activity Actions to occur as part of the plan. A.2.9.1.6.3 Specific attributes Specific attributes per each activity type expressed by the Activity kind element, E.g., specific attributes for prescription request, appointment, etc. A.2.9.2 Medication summary Medication summary The reason why the medication is or was or prescribed or used. It provides a link to the Past or current health condition(s) or the Medication reason the part of current health condition(s) or the past or current health con	freetext
A.2.9.1.6 Activity Actions to occur as part of the plan. A.2.9.1.6.1 Kind Activity. For example, a Medication Request, a ServiceRequest, or a CommunicationRequest. A.2.9.1.6.2 Activity description A detailed description of the activity. Specific attributes Specific attributes Specific attributes or prescription request, appointment, etc. A.2.9.2 Medication summary Compared to previous practices, the overview is supplemented with medication that has been discontinued. A.2.9.1 Medication reason the Past or current health condition(s) or Core Optional Conditional Conditions) A.2.9.1 Medication reason the Past or current health condition(s) or Core Optional Conditional Conditions) A.2.9.1 Medication reason the Past or current health condition(s) or Core Optional Conditional Conditions)	freetext
A description of the type of care plan activity. For example, a MedicationRequest, a ServiceRequest, or a CommunicationRequest, a ServiceRequest, or a CommunicationRequest. A.2.9.1.6.2 Activity description A detailed description of the activity. Specific structured attributes per each activity type expressed by the Activity kind element, E.g., specific attributes for prescription request, appointment, etc. Summary information on the medication recommended for the period after discharge, indicating whether the medication is changed or newly started. Compared to previous practices, the overview is supplemented with medication that has been discontinued. The reason why the medication is or was prescribed or used. It provides a link to the Past or current health condition(s) or	freetext
A.2.9.1.6.1 Kind activity. For example, a MedicationRequest, a ServiceRequest, or a CommunicationRequest. A.2.9.1.6.2 Activity description A detailed description of the activity. Specific structured attributes per each activity type expressed by the Activity kind element, E.g., specific attributes for prescription request, appointment, etc. Summary information on the medication recommended for the period after discharge, indicating whether the medication is changed or newly started. Compared to previous practices, the overview is supplemented with medication that has been discontinued. The reason why the medication is or was prescribed or used. It provides a link to the Past or current health condition(s) or the Past or current health condition that health can be calculated by the Past or current health condition that health c	freetext
A.2.9.1.6.3 Specific attributes Specific structured attributes per each activity type expressed by the Activity kind element, E.g., specific attributes for prescription request, appointment, etc. Summary information on the medication recommended for the period after discharge, indicating whether the medication is changed or newly started. Compared to previous practices, the overview is supplemented with medication that has been discontinued. The reason why the medication is or was prescribed or used. It provides a link to the Past or current health condition(s) or A 2.9.2.1 Medication reason Medication reason Specific structured attributes per each activity kind element, E.g., specific attributes for prescribed or the medication recommended for the period after discharge, indicating whether the medication is changed or newly started. Compared to previous practices, the overview is supplemented with medication that has been discontinued. Specific structured attributes per each activity kind element, E.g., specific attributes for prescribed or newly started. Core optional Other Data of the following prescribed or used. It provides a link to the Past or current health condition(s) or	freetext
A.2.9.1 Specific attributes activity type expressed by the Activity kind element, E.g., specific attributes for prescription request, appointment, etc. Summary information on the medication recommended for the period after discharge, indicating whether the medication is changed or newly started. Compared to previous practices, the overview is supplemented with medication that has been discontinued. The reason why the medication is or was prescribed or used. It provides a link to the Past or current health condition(s) or A 2.9.2.1 Medication reason Mot required Not required Not required Not required Not required Not required Not required Optional	freetext
A.2.9.2 Medication summary period after discharge, indicating whether the medication is changed or newly started. Compared to previous practices, the overview is supplemented with medication that has been discontinued. The reason why the medication is or was prescribed or used. It provides a link to the Past or current health condition(s) or A 2.9.2.1 Medication reason	freetext
prescribed or used. It provides a link to the Past or current health condition(s) or A 2 9 2 1 Medication reason Core Ontional O'N N	
problem(s) that the patient has had or has and for which this medication was prescribed. Orphacode if rare disease is diagnosed	freetext
A.2.9.2.2 Reason for change Reason for change of medication hl7:reason-medication-status-codes Core Optional 0:N N	freetext
A.2.9.2.3 Code Product code. IDMP Core Not required N	
A.2.9.2.4 Brand name Brand name Brand name if biological medicinal product or when justified by the health professional (ref. Commission Directive 2012/52/EU) Core Optional O:N N	freetext
A.2.9.2.5 Active ingredient list Products the intended activity of a medicinal product. Example: "paracetamol" Substance that alone or in combination with one or more other ingredients produces the intended activity of a medicinal product. Example: "paracetamol" ATC (IDMP / EMA SPOR SMS) Optional O:N N	freetext
A.2.9.2.6 Strength UCUM Core Optional 0:N N	



		The content of the active ingredient							
		expressed quantifiably per dosage unit,	EDQM Standard terms						
		per unit of volume or per unit of weight,							
		according to the pharmaceutical dose	terms						
		form. Example: 500 mg per tablet							
	Pharmaceutical dose	The form in which a pharmaceutical	EDQM Standard			0:N			
A.2.9.2.7	form	product is presented in the medicinal	terms	Core	Optional		N		freetext
	101111	product package (e.g. tablet, syrup)	ternis						
		Number of units per intake and							
A.2.9.2.8	Danasa Daniman	frequency of intake over a specified		C	Optional	0.11	N		£
A.Z.9.Z.8	Dosage Regimen	duration of time.		Core	Орионаі	0:N	IN		freetext
		Example: 1 tablet every 24h, for 10 days							
	Davids of	Path by which the pharmaceutical	EDOM Chandrad						
A.2.9.2.9	Route of administration	product is taken into or makes contact	EDQM Standard	Core	Optional	0:N	N		freetext
	aummstration	with the body.	terms						
		The interval of time during which it is							
4 2 0 2 40	David of Landau and	being asserted that the patient			0.121	0.81			Constant
A.2.9.2.10	Period of treatment	is/was/will be taking the medication (or	Core	Optional	0:N	N		freetext	
		was not taking).							
		Number of days for which the patient							
		was provided with the drug. Supply is	исим	Core	Optional	0:N	N		
		intended to either hand over the							
		medicine or write out a prescription. A 0							
A.2.9.2.11	Days supplied	value indicates that the patient has not							freetext
		been provided with the drug (e.g. if the							
		patient has a sufficient supply of the							
		drug)							
		Other recommendations (advice) after							
		discharge. Multiple recommendations							
	Other	could be provided. E.g., recommendation							
A.2.9.3	recommendations	to suggest hip replacement, reduce		Core	Optional	0:1	N		freetext
		number of cigarettes, stop smoking,							
		increase physical exercises, etc.							
Other requir	Other required data fields that are not present in these guidelines.								
A.1.2.2.x	ID organisation	code of HP organization			Required	1:1	S		
		code of department in the HP					_		
A.1.2.2.x	ID department	organization			Required	1:1	S		
		<u> </u>							