eHealth Network

Guideline on

the electronic exchange of health data under Cross-Border Directive 2011/24/EU

Hospital Discharge Report

Release 1.0, November 2023

The eHealth Network is a voluntary network, set up under article 14 of Directive 2011/24/EU. It provides a platform of Member States' competent authorities dealing with eHealth.

Adopted by eHealth Network, November 2023

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1. USE CASE DESCRIPTION

1.1 Hospital Discharge Report for Cross Border Care

This Use Case represents a high level of consensus on what constitutes European eHealth services, as this Use Case was described by Directive 2011/24/EU of 9 March 2011 on the application of patients' rights in cross-border healthcare.

Use Case description:

Title	**Hospital Discharge Report sharing on a cross-border scale**
Purpose	Support continuity of care by improving efficiency and consistency of the hospital discharge process. ● To support information sharing from health professional in the country of treatment (Country B) to the patient country of affiliation (Country A). ● The sharing of information from country of affiliation (Country A) to country of treatment (Country B) should also be included. Additionally, the electronic exchange of hospital discharge reports can be used to inform the patient or representatives, reimbursement processes, secondary use of data (statistics, research, policy making). As information sharing should not be limited to the cross-border level, implementers, including Member States, could also use these guidelines for national and regional level interoperability to ensure consistency as well as avoid fragmentation and duplication of efforts.
Relevance	Hospital Discharge Reports (HDR) are in general the most comprehensive clinical documents, always generated after a hospitalisation. They are specific on what happened and was performed during the staying at hospital, including diagnoses, treatments, procedures, test results, but they frequently contain the detailed recollection and the indications (including, but not limited to) therapies, and care plan. For those reasons, Hospital Discharge Reports are key for the continuity of care, retrospectively and prospectively. The Hospital Discharge Report is a very useful summary of the patient clinical history for a specific hospital stay and can serve for future planned and unplanned care as reference for searching for additional information. The HDRs are a relevant source of such retrospective information together with information e.g. from the Patient Summary. In particular, in case of a

	new hospitalisation, it is always required to provide documents about the previous hospitalisations. After the discharge from the hospital, the newly generated HDR should be transferred and added to the patient's EHR and the Patient Summary document can be updated accordingly.
Domain	Hospital Discharge Report
Situation	Cross-border, (potential inter-regional or national)
Context	Different countries operate different healthcare systems, support their own culture for healthcare provision, and may use different (or several different) language(s) and possibly different clinical vocabularies and legal basis for the data processing. This raises challenges (e.g. in semantic interoperability) for the support of cross-border exchange of health data and may result in limitations in the use of patients' medical information during patient treatment and care process in different European countries. The political drive for cross border care within the European Union (EU) and an increasing focus on integrated care both have implications for Electronic Health Records (EHRs). The hospital discharge summary is a critical component to ensure quality and continuity of care and an electronic, interoperable record is of particular benefit in a cross-border setting. A Hospital Discharge Report plays a crucial role in keeping patients safe and ensure their well-being after leaving a hospital. The Hospital Discharge Report (HDR) consists of primary clinical information communicating a patient's encounter during a hospital stay to the patient in question and their health professionals. They typically include a patient's medical history, a summary of the hospital stay, the health status of the patient at the time of discharge, and the care plan for the post-hospital care treatment. As such, the hospital discharge summary of a hospital encounter is compiled at the end of an inpatient stay for the patient. With a growing number of European citizens working and living in other Member States, it is increasingly important to achieve a way of exchanging hospital discharge information across the EU in a way that keeps the confidentiality, integrity, and availability of patient information, thereby providing continuity of care. Other benefits include reduced costs of treatment, ease of access to patient data for the patient in question and their health professionals. To ensure continuity of care during the transition between cross-border types of care, effective communication between health professionals is required. Timely access to complete documentation regarding an inpatient stay can lead to improved quality of care after discharge. The hospital discharge report (HDR) generated at the end of an inpatient stay in Country B provides the basis for information:

	1) sent from health professionals in Country B to health care professionals in Country A; 2) retrieved by health professionals in Country B from health professionals in Country A. Depending on the member state legislation and practice, the HDR is provided to either the patient upon discharge and/or sent to the relevant health professionals. The process flow includes following steps: 1. HDR author creates discharge report and stores it in their EHR system 2. Responsible physician (attester) validates the HDR 3. Legal authenticator authenticates the HDR 4. HDR sender electronically sends HDR to the identified HDR receivers/ authenticated and authorised HDR retriever electronically retrieves the HDR. **HDR sender**: Hospital discharge report, once created and validated needs to be handed over to its receiver, which is either known at the time of discharge or unknown. In some EU countries, hospital discharge reports must be automatically sent to the GP or family physician that treats the patient on a regular basis or to a referring physician, or to the patient himself. In some countries a national EHR system where the hospital discharge report should be automatically stored may exist while other countries allow its storage in the different PHR/PCHR systems. HDR sender is a human or information system responsible for directing validated HDR into its recipient or target from which other authorised actors could pull it when they need. **HDR receiver**: Usually a primary care physician (GP) or other medical role equivalent that receives the HDR once it is sent from the HDR sender to a particular Healthcare Service Provider.
Information	Hospital Discharge Report
Participants	Citizen/Patient Health professional in country of treatment and care (country B) Health professional in patient's country of origin/affiliation (country A) Hospital Discharge Author
Functional process steps	Country of Affiliation (hereafter Country A) refers to the country of origin/affiliation.

	Country of Treatment (hereafter Country B) refers to country of treatment and care. **Use case 1** **The patient having had a hospital admission in Country B, has a hospital discharge report prepared by the Health Professional in Country B.** 1. The health professional in Country B is identified, authenticated and authorised. 2. The patient is identified. 3. Health professional provides information to the patient on how personal health data in the Hospital Discharge Report will be collected and processed. 4. The hospital discharge report is electronically transferred in a secure way, from country B to Country A. 5. The hospital discharge report should be made available for health professionals (country A) involved with the continuity of care of the Patient. **Use case 2** **The patient has had a hospital admission in Country A and consults a Health Professional in Country B** 1.The Health Professional in Country B is identified, authenticated and authorised. 2. The *Patient* is identified (identity confirmed by country A). 3.. The Health Professional provides information to the patient on how personal health data in the hospital discharge report will be collected and processed. 4.The Health Professional requests the available hospital discharge reports from the Country A 5. The Health Professional selects and requests the relevant hospital discharge report. Refer to Article 5 general guidelines for information on Identification, authentication, authorisation, and consent.

Table 1: Hospital Discharge Report Use Case description

2. GUIDELINES FOR HOSPITAL DISCHARGE REPORT

The Member States in the eHealth Network have adopted these supplementary clauses to the general guidelines for the electronic exchange of health data under Cross-Border Directive 2011/24/EU to support the exchange of Hospital Discharge Report for continuity of care in a cross-border setting. The Hospital Discharge Guideline builds on the foundations laid out by the Patient Summary and the ePrescription Guidelines (including datasets and code systems). The eHealth Network guidelines[1] build a set of guidelines that should be seen as complementing each other in different use cases and are operating under the umbrella of the General Guidelines.

Chapter I - General Considerations

Article 1: Objectives, scope and maintenance

1. These guidelines, as adopted by the eHealth Network, are addressed to the Member States of the European Union and apply to the implementation of a Hospital Discharge Report dataset for cross-border exchange.
2. These guidelines could serve as a guiding principle for the national development and implementation of Hospital Discharge Reports.
3. The Hospital Discharge Report facilitates the free movement of patients across borders, as well as national interoperability, avoiding repeated costs, enabling savings for patients and healthcare systems. It also allows for the portability of data, which is one of the rights embedded in several legislative acts, such as the General Data Protection Regulation (GDPR).
4. This document covers all aspects of hospital discharge reports pertaining to the continuity of care between national and cross-border settings, regarding inpatient care (admitted patient). This includes discharges from all inpatient care settings, general hospitals, mental health hospitals, and other specialised hospitals or healthcare institutions which produce a document that can be considered as a hospital discharge report.

Article 2: Definitions

For the purpose of these guidelines, the definitions of Directive 2014/24/EU, of the eHealth Network General Guidelines, supplemented by the following definitions shall apply:

Term	Definition
Episode of Care	Identifiable grouping of healthcare-related activities characterised by the entity relationship between the subject of care and a healthcare provider,

[1] https://health.ec.europa.eu/publications/general-guidelines-guidelines-electronic-exchange-health-data-under-cross-border-directive-201124eu_en

Term	Definition
	such grouping determined by the healthcare provider *SOURCE: ISO/TS 18308:2004, definition 3.23*
Hospital encounter	An interaction between a patient and healthcare provider(s) for the purpose of providing healthcare service(s) or assessing the health status of a patient. *Source: http://hl7.org/fhir/R5/encounter.html*
Inpatient	A person who is formally admitted to a healthcare facility and who is discharged. *Adapted from: Inpatient from WHO Guidelines on Hand Hygiene in Health Care: First Global Patient Safety Challenge Clean Care Is Safer Care*
Health Care facility	Dedicated setting where health care professionals deliver services for care of patients. For example, hospitals, free standing ambulatory surgical centres, nursing homes, extended care facilities, medical, dental and physician offices or clinics and other specialised treatment facilities. *Source: ISO 22441:2022(en), 3.17*
Hospital discharge report (HDR)	Hospital discharge summaries serve as the primary documents communicating a patient's care plan to the post-hospital care team. Often, the discharge summary is the only form of communication that accompanies the patient to the next setting of care. Is a report which encompasses a summary of events occurred during a hospital encounter usually manifesting as a hospital admission, stay and discharge, and including communication of a care plan. For a more detailed list of elements, please refer to the dataset (Chapter 4). *Source: https://www.ncbi.nlm.nih.gov/books/NBK43715/*

Article 3: Concept and intended use

1. The provisions in the "*eHealth Network GUIDELINE on the electronic exchange of health data under Cross-Border Directive 2011/24/EU - General guidelines*" apply.
2. The aim of the Use Case is to help support safe, high-quality cross-border care for emergency, unplanned and planned care events. This does not preclude the Hospital Discharge Report being used for any other medical purposes.

Chapter II - Legal and Regulatory Considerations

Article 4: Data protection

1. Data contained in HDR is a special category of personal data within the meaning of Art. 9 of the General Data Protection Regulation and therefore Member States will need to ensure processing and storage are in line with applicable data protection requirements.

2. Regarding patient rights, national regulation may allow patient to disclose certain elements of Hospital Discharge Report records. Nevertheless, the sensitive information in the HDR must be used confidentially and in the best interests of the patient.

Article 5: Identification authentication and authorisation

Implementation of the Hospital Discharge Report implies that each Member State has addressed enabling activities such as:

1. Providing an official ID number for each citizen for healthcare purposes. For cross-border purposes, an unambiguous patient identifier is a necessary requirement for each individual patient to be linked to the patient record in the country of affiliation.
2. Reference is made to the provisions defined in the eHealth Network General Guidelines in Article 5.

Article 6: Patient safety

Regarding patient safety, there are no specific additional requirements, reference is made to the provisions defined in the eHealth Network General Guidelines.

Chapter III - Organisational and Policy Considerations

Article 7: Enablers for implementation

The Hospital Discharge Report could complement the essential information provided within the Patient Summary making it highly valuable for unscheduled care where the health professionals have no previous knowledge about the patient. Even so, it can also provide a complementary source of information in planned care by supporting health professionals to connect to the stream of information generated along the patient continuity of care.

1. Taking in consideration the nature of the information contained in the Hospital Discharge Report, it is up to each Member State, healthcare provider or initiative to identify the clinical processes that can benefit from its availability and possible updates.
2. The ability to populate the Hospital Discharge Report relies on the accessibility of patients' electronic health information. It is up to each Member State, healthcare provider or initiative to establish the necessary policies to ensure that the Hospital Discharge Report is available, and it is used in the aimed clinical processes.
3. The implementation of a Hospital Discharge Report might facilitate the possibility to indicate additional health professionals/healthcare institutions, particularly when addressing specific patient needs like those related to expert centres specialised in rare diseases and cancers.

Article 8: Quality standards and validation

There being no specific additional requirements, reference is made to the provisions defined in the eHealth Network General Guidelines.

Article 9: Education, training and awareness

1. The added value of the Hospital Discharge Report relies on its use under the right conditions. One essential condition is the education and instruction of health professionals to streamline the access to the Hospital Discharge Report without adding additional burden when compared to the access of other health information.
2. Health professionals should be aware that the main purpose of the Hospital Discharge Report is continuity of care. The main focus will be on the information supporting this purpose. Other redundant information should be minimised. The structure of the Hospital Discharge Report should be standardised, and information should be presented in a logical order for ease of the reader of the Hospital Discharge Report.
3. Taking in consideration the essential nature of the information present in a Hospital Discharge Report, it is important to instruct health professionals in the use of key pieces of information available.
4. Along the Citizen/Patient Continuity of Care, several health professionals will interact with the Patient. Each of these health professionals should be trained about the key information that should be included into the Hospital Discharge Report.

Chapter IV - Semantic Considerations

Article 10: Data

1. The content of the HDR Dataset is shown in chapter 4. The HDR Dataset comprises *HDR Header* and *HDR Body*.
2. Clinical information in the HDR will comprise narrative text along with coded data, the latter will allow an unambiguously way of communicating the same information between the country of affiliation and the country of treatment.
3. All clinically relevant information in machine readable form (coded elements) must also be available in human readable form.
4. It is the responsibility of the Member State to provide data in compliance with these guidelines. Member States are encouraged to align their future considerations on a national HDR according to the dataset structure given in chapter 4.
5. For a given patient, some of the elements might be empty as no data would be applicable or available; such situations should be communicated differently. Cardinality (i.e., repetition and optionality) of individual fields or groups of fields are not part of this document and can be defined in detailed implementation guides.
6. The coded (by using the selected international code systems and value sets) content of the HDR is received by the health professional in two languages, Country A language and a translation to Country B language. If Country B language is unavailable for a dataset, English can be used.
7. When the available coded information in one Member State cannot be transcoded into the selected preferred code system and value sets, the information should, as an interim solution, be transferred encoded, preferably displayed in English. The use of narrative form may be allowed.

Article 11: Terminology

1. The Use Cases require the ability to convey both meaning and context in the Hospital Discharge Report to enable safe, high-quality care. For that purpose, along with the dataset structure, preferred code systems provide concepts that will be understood by both the provider and the receiver of the Hospital Discharge Report.
2. Different code systems are used by Member States. The strategic long-term goal is to gradually reduce fragmentation and converge on the use of international code systems across Europe also considering, in the future, the expected wider use of new and emerging international standards such as the International Classification for Diseases 11th Revision (ICD-11), SNOMED CT or the International Classification of Health Interventions (ICHI). Likewise, the ISO Identification of Medicinal Products (IDMP) suite of standards should be used for medicinal products identification, as soon as made available by the EMA and National Competent Authorities joint SPOR (Substances, Products, Organisations, Referentials) Project.
3. Member States wishing to engage in cross-border communication are encouraged to use for that communication, the preferred code systems as described in the Hospital Discharge Report Dataset in chapter 4.

Article 12: Controlled Lists (Value set Catalogues)

There being no specific additional requirements, reference is made to the provisions defined in the eHealth Network General Guidelines.

Chapter V - Technical Considerations

Article 13: Technical requirements

Member States are free to choose the technical implementation of their Hospital Discharge Report (HDR). Nonetheless, for cross-border exchange the format of the document for exchange shall be based on standards and profiles as agreed by the eHealth Network for the particular technical infrastructure.

Article 14: Security

There being no specific additional requirements, reference is made to the provisions defined in the eHealth Network General Guidelines.

Article 15: Testing and audit

There being no specific additional requirements, reference is made to the provisions defined in the eHealth Network General Guidelines.

3. SUPPORTING INFORMATION

This chapter provides supporting information and explanatory text to aid understanding the guidelines, and the rationale underlying the recommendations. This chapter follows the same structure as the eHealth Network General Guidelines.

The main goal of this chapter is to disseminate common practices for initiatives implementing the exchange of hospital discharge reports and it is highly inspired by the lessons learnt in the MyHealth@EU implementation of the eHealth Network guidelines.

The material in this chapter is based on work from previous EU projects paving the way for digital health interoperability. Additional insights and future evolutions are expected considering ongoing and upcoming initiatives towards the European Health Data Space and the European Electronic Health Record Exchange Format.

Chapter I - General Considerations

Article 1: Objectives and scope

The objective of the Hospital Discharge Report (HDR) Guidelines is to retain the concept of a controlled HDR. The dataset is non-exhaustive, providing a robust, well-defined core set of data items.

Article 2: Definitions

There being no specific additional requirements, reference is made to the provisions defined in the eHealth Network General Guidelines.

Article 3: Concept and intended use

These guidelines are non-binding and Member States are considered to have the right to choose freely their way of implementing national Hospital Discharge Report datasets. The Hospital Discharge Report guidelines focus on the content issues and the description of possible ways to produce this content for cross-border exchange, taking existing national implementations into consideration.

The selection of data elements comprising the Hospital Discharge Report may be extended to hold additional and necessary information in standardised modules as clinically relevant.

Chapter II - Legal and Regulatory Considerations

Article 4: Data protection

There being no specific additional requirements, reference is made to the provisions defined in the eHealth Network General Guidelines.

Article 5: Identification, authentication and authorisation

To be able to link patients with their patient records related to the HDR episode, the existence of a patient identifier is necessary. For cross-border purposes, an unambiguous patient identifier is also a necessary requirement for each individual patient to be linked to the patient record in the country of origin. Analysis of data shows that most Member States already have a national patient identifier available. In some cases, Member States have a regional patient identifier.

Article 6: Patient safety

The Hospital Discharge Report is a clinical document to support the continuity of care. For the patient´s safety, it is important that the health professional is aware of the fact that the HDR cannot be exhaustive. The provided data must be reliable, coherent both when it is declared the presence or the noted absence of specific clinical conditions.

Chapter III - Organisational and Policy Considerations

Article 7: Enablers for implementation

The primary goal of the HDR is to support cross-border care, so that any Member State should follow these guidelines for reference for HDR national implementation. The eHealth Network has agreed that the guidelines could serve as a common baseline for HDR at national level. The agreement on the HDR Dataset in Europe and its widespread implementation will assist Member States in the implementation of interoperable solutions for health care. Using the HDR guideline as the guiding principle for all types of EU-projects and implementations (such as registries and research projects) can foster the use of HDR data within the European Health Data Space.

Article 8: Quality standards and validation

Member States should work together to build a convergent use of code systems. Mappings should be done as shared activities when more Member States are affected. Also licensing activities with Standard Developing Organisations (SDO) partners should be done together. This will reduce the burden of the workload, support capacity building and also foster the EU pathway towards a harmonised way forward. This may be facilitated by the European Commission.

Article 9: Education, training and awareness

When collaborating with EHR software providers to streamline access to the Hospital Discharge Report, prioritise user-friendly interfaces and reducing unnecessary clicks.

Chapter IV - Semantic Considerations

Article 10: Data

The Hospital Discharge Report can be created and signed by a health professional or be automatically generated by a system. In both cases, of manually and automatically generated HDR, information may be derived from multiple sources using different semantic standards and datasets, which complicates the exchange of cross-border HDR information. Therefore, a selection of data elements (see chapter 4. Hospital Discharge Dataset) for cross-border care was compiled to serve as exchange format throughout the EU and Europe. This dataset can provide countries with a guideline to orient future evolutions of their Hospital Discharge Report. The content of the dataset is version controlled, subject to change through a change control process.

International standards shall be adopted to convey the contents of Hospital Discharge Report in a structured and coded way, unequivocally understandable by health professionals at national and cross-border level.

The identification of medicinal products, in particular, is posing important challenges for the exchange of information in the Hospital Discharge Report. It is expected that the coding schemes currently included within the dataset will be complemented by datasets and identifiers developed during the implementation of the ISO IDMP set of standards[2]. The European Medicines Agency is leading the work on this implementation in Europe in coordination with the National Competent Authorities in Member States.

The results section should be used to communicate the observed results for a patient that may be relevant for the continuity of care.

In the instance where the Patient provides health information such as travel history relevant for the HDR to the health professional (for example, a recent travel in a region of high prevalence of a specific infectious disease like Malaria), the section is not intended for data injected directly by the patient. Future revisions of the HDR Guideline might capture the need of such reported data.

Article 11: Terminology

Successful sharing of information requires the effective use of standards to support accurate and complete clinical documentation to ensure consistency.

The use of standardised and recognised code systems allows the unambiguous exchange of clinical information in the HDR. Both the Member State providing the information and the Member State receiving it need to understand the clinical concepts, therefore it is recommended to use preferred code systems as presented in chapter 4. Member States using

[2] https://www.ema.europa.eu/en/human-regulatory/overview/data-medicines-iso-idmp-standards-overview

different international standard code systems, should make use of mappings to the preferred code systems.

It is up to the eHealth Network to oversee the process by which code systems are kept under review and facilitate licensing arrangements.

Article 12: Controlled Lists (Value set Catalogue)

Since some code systems such as SNOMED CT, LOINC, and ICD (to name just three of the possible ones) contain a large number of concepts, it might not always be practical to use them in their entirety within the European context where some Member States might use internally different code systems that they will have to cross-reference and/or translate. A clear set of criteria should be used to select the most significant concepts and arrive at a reasonable manageable content.

Some code systems, such as SNOMED CT, may be restricted in use for licensing reasons. In these cases, available partially unrestricted, subsets should be considered, for example, the content of the SNOMED CT Global Patient Set (GPS).

Chapter V - Technical Considerations

Article 13: Technical requirements

There being no specific additional requirements, reference is made to the provisions defined in the eHealth Network General Guidelines.

Article 14: Security

There being no specific additional requirements, reference is made to the provisions defined in the eHealth Network General Guidelines.

Article 15: Testing and audit

There being no specific additional requirements, reference is made to the provisions defined in the eHealth Network General Guidelines.

4. HOSPITAL DISCHARGE REPORT DATASET

The datasets indicated in the following tables are considered relevant for patient safety and the provision of adequate level of care both at cross-border and national level.

A Hospital Discharge Report is a self-contained document, which records all clinically relevant information pertaining to the patient's stay in a hospital, which are essential for the continuity of care. It is the responsibility of the document's author to determine which information is to be included (e.g. patient medical history). The author should ensure that the Hospital Discharge Report is clear, concise, and readable.

Hospital discharge report dataset comprises from following parts:

- HOSPITAL DISCHARGE REPORT HEADER
- HOSPITAL DISCHARGE REPORT BODY – Core Dataset
- HOSPITAL DISCHARGE REPORT BODY – Full Dataset

The Core Dataset of the Hospital discharge report body represents the essential elements of this document. Additional parts can be added to specific implementations of the HDR as shown in the Full Dataset. To achieve international alignment for possible data exchange, these elements might be considered in future versions of this Guideline for inclusion in the Core Dataset.

It is up to each implementation project to decide on the conformance and cardinality (i.e. data elements required or optional and number of repetitions).

The indicated "Preferred Code Systems" are inspired by the MyHealth@EU implementation and the HL7 IPS implementations.

4.1 HOSPITAL DISCHARGE REPORT HEADER

#	Data element	Description	Preferred Code System
A.1	**Hospital Discharge Report header data element**		
A.1.1	**Identification of the patient/subject**		
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.	
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.	
A.1.1.3	Date of birth	Complete date, following the ISO 8601.	ISO 8601
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	
A.1.1.5	Nationality	Nationality of the patient.	ISO 3166
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
A.1.1.7	Country of affiliation	Name of country of affiliation	ISO 3166
A.1.2	**Patient/subject related contact information**		
A.1.2.1	**Patient address**		
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 is not present it is assumed to be the default address useful for any purpose.	ISO 3166

#	Data element	Description	Preferred Code System
A.1.2.1.2	Telecom	Telecommunication contact information (addresses) associated with a person, such as phone number, email, or messaging service. Multiple telecommunication addresses might be provided.	
A.1.2.2	**Preferred health professional (HP) - This section can be repeated and linked to any specific information in the document, for example a link between a rare disease problem and the rare disease specialist responsible for the care of the individual patient (this section).**		
A.1.2.2.1	Identifier of the HP	An identifier of the health professional that is unique within a defined scope. Example: National health professional ID. Multiple identifiers could be provided.	
A.1.2.2.2	Name of the HP	Name of the health professional that has been treating or taking responsibility for the patient. [the structure of the name will 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 could be provided.	ISCO
A.1.2.2.4	HP Organisation	Health professional organisation details	
A.1.2.2.5	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.	ISO 3166
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.	
A.1.2.3	**Contact person/ legal guardian (multiple contacts could be provided)**		
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

#	Data element	Description	Preferred Code System
A.1.2.3.2	Relationship level	Relationship type with the patient (e.g. father, wife, daughter)	HL7 RoleCode SNOMED CT
A.1.2.3.4	Given name	Given name of the contact person/guardian. This field can contain more than one element.	
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)].	
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
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.	
A.1.2.3.8	Contact person organisation	Contact person organisation information.	
A.1.3	**Health insurance and payment 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.**		
A.1.3.1	Health insurance code	Unique health insurance company identification code.	
A.1.3.2	Health insurance name	Full, official name of the healthcare insurance provider.	
A.1.3.3	Health insurance number	Number or code under which the insured person is registered at the insurance provider.	

#	Data element	Description	Preferred Code System
A.1.4	**Information recipient - (intended recipient or recipients of the report), if applicable**		
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.	
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)].	
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.	
A.1.4.4	Recipient organisation	The healthcare provider organisation information.	
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.	
A.1.4.6	Country	Country of the intended recipient as part of the address.	ISO 3166
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.	
A.1.5	**Author (by whom the Hospital discharge report was/were authored). Multiple authors could be provided.**		
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.	

#	Data element	Description	Preferred Code System
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)].	
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.	
A.1.5.4	Author organisation	The healthcare provider organisation information.	
A.1.5.5	Date Time	Date and time of the last modification of the document by its Author.	ISO 8601
A.1.6	**Attester (multiple attesters could be provided)**		
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.	
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)].	
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.	
A.1.6.4	Attester organisation	The healthcare provider organisation information.	
A.1.6.5	Approval date and time	Date and time of the approval of the document by Attester.	ISO 8601
A.1.7	**Legal authenticator (The person taking responsibility for the medical content of the document)**		
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.	

#	Data element	Description	Preferred Code System
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)].	
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.	
A.1.7.4	Legal authenticator organisation	The healthcare provider organisation information.	
A.1.7.5	Authentication date and time	Date and time when the document was authorised.	ISO 8601
A.1.8	**Document metadata**		
A.1.8.1	Document ID	Unique identifier of the document	
A.1.8.2	Document type	Identifies the type of document at hand, e.g. Hospital discharge report.	LOINC
A.1.8.3	Document status	The status of the Hospital discharge report. E.g., preliminary, final.	hl7:CompositionStatus
A.1.8.4	Report date and time	Date and time of the Hospital discharge report creation.	ISO 8601
A.1.8.5	Document title	Document title, fix value "Hospital discharge report".	
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].	
A.1.8.7	Confidentiality	Level of confidentiality of the document. Implicit value is normal.	hl7:Confidentiality

#	Data element	Description	Preferred Code System
A.1.8.8	Language	Language in which the document is written. Language is expressed by the ISO language code.	ISO 639
A.1.8.9	Version	Version of the document	

Table 2: Hospital discharge report dataset for administrative data

4.2 HOSPITAL DISCHARGE REPORT BODY - Core Dataset

This section specifies the Core Dataset of what is a Hospital Discharge Report in the scope of this guideline. The Core Dataset represents the essential elements of this document. In Chapter 4.3 a complete dataset with additional data elements that might be used in a Hospital Discharge Report are included and can be added to specific implementations.

#	Data Element	Description	Preferred Code System (*) (**)
A.2.0	**Hospital Discharge Report in its narrative form**		
A.2.2	**Alerts**		
A.2.2.1	**Allergy and Intolerance**	**A record of allergies and intolerances (primarily to be used for new allergies or intolerances that occurred during the hospital stay).**	
A.2.2.1.1	Allergy description	Textual description of the allergy or intolerance	
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
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

#	Data Element	Description	Preferred Code System (*) (**)
			(IDMP / EMA SPOR SMS)
A.2.2.2	**Medical alerts (relevant for the respective hospital stay)**		
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 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.	SNOMED CT LOINC
A.2.3	**Encounter**		
A.2.3.3	**Admission**		
A.2.3.3.1	Admission urgency	Admission type, either emergency or planned	hl7:v3-xEncounterAdmissionUrgency

#	Data Element	Description	Preferred Code System (*) (**)
A.2.3.3.2	Admission date	Admission date and time.	ISO 8601
A.2.3.3.6	Admitting organisation	The healthcare provider organisation information.	
A.2.3.4	**Admission reason**		
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
A.2.3.4.2	Admission reason comment	Explanation of the reason for the encounter.	
A.2.3.5	**Discharge**		
A.2.3.5.1	Discharge date	Discharge date and time	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
A.2.3.5.3	Destination location	The location/organisation to which the patient will go after the encounter. Name, address and telecommunication contact.	
A.2.3.6	**Location -** All locations/departments where the patient stayed (was boarded) within the hospital.		
A.2.3.6.1	Period	Time period during which the patient was present at the location	
A.2.3.6.3	Organisation Part Name	Full name of the organisation part, e.g. Name of the department	
A.2.3.6.4	Organisation Part Details	Address, contact names and contact details, specialty of the organisation part.	SNOMED CT
A.2.6	**Course of hospitalisation (Hospital stay)**		

#	Data Element	Description	Preferred Code System (*) (**)
A.2.6.1	**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, codable, 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 section.	
A.2.6.1.1	Problem description	Problem specification in narrative form	
A.2.6.1.2	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
A.2.6.1.3	Onset date	Onset date of a problem/condition	ISO 8601
A.2.6.1.5	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	
A.2.6.1.6	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,	Treated, Other

#	Data Element	Description	Preferred Code System (*) (**)
		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).	
A.2.6.2	**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.	
A.2.6.2.1	Procedure code	Procedure code	SNOMED CT IPS Absent and Unknown Data
A.2.6.2.2	Procedure description	Narrative description of the procedure	
A.2.6.2.4	Procedure date	Date and time when procedure was performed	ISO 8601
A.2.6.2.8	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.	
A.2.6.3	**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	
A.2.6.3.1	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.	SNOMED CT EMDN IPS Absent and Unknown Data

#	Data Element	Description	Preferred Code System (*) (**)
A.2.6.3.3	Implant date	The date and time the device was implanted or when its use began.	ISO 8601
A.2.6.3.4	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
A.2.6.5	**Pharmacotherapy**	Selected drug treatment during hospitalisation. Medicinal products that were administered during hospitalisation and whose administration has already been discontinued before discharge. Only products which are important for continuity of care (antibiotics other than completely routine, corticosteroids in high doses, etc.) will be listed. Products which administration will continue after discharge will be also recorder in the Medication summary section. Medicinal products, the administration of which was started during hospitalisation, but is also recommended after discharge, will be listed in the summary table in the recommendation section.	
A.2.6.5.2	Code	Product code	IDMP
A.2.6.5.4	Brand name	Brand name if biological medicinal product or when justified by the health professional (ref. Commission Directive 2012/52/EU)	
A.2.6.5.10	Period of treatment	The time interval when the patient was, or was not, given the medication.	
A.2.6.6	**Significant Observation Results**	Results of significant functional, diagnostic, and imaging examinations to ensure continuity of care, performed during hospitalisation. Results of examinations ordered but not yet delivered should be presented separately from results already delivered.	
A.2.6.6.1	Date	Date and time of the observation	ISO 8601
A.2.6.6.3	Result description	Narrative representation of the observation result and findings.	
A.2.6.6.4	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 aspects of the observation.	LOINC NPU SNOMED CT ISO 8601
A.2.6.6.5	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	SNOMED CT UCUM

#	Data Element	Description	Preferred Code System (*) (**)
		reference ranges and result interpretation. Content of the observation result will vary according to the type of the observation.	(measurement units)
A.2.6.7	**Synthesis**	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.	
A.2.6.7.1	Problem synthesis	Summary description of the reason and course of hospitalisation for a specific problem.	
A.2.7	**Discharge details** (structured information should be provided, however if not available, at least a summary note should be present).		
A.2.7.1	**Objective findings**		
A.2.7.1.1	Date	Date and time of the examination at or before discharge	ISO 8601
A.2.7.1.3	**Anthropometric observations**	Observation of Body weight and height of the patient, BMI, circumference of head, waist, hip, limbs and skin fold thickness. Result of the observation includes text, numeric and coded results of the measurement including measurement units. Multiple observations could be provided.	
A.2.7.1.3.2	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
A.2.7.1.3.3	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)
A.2.7.1.4	**Vital signs**	Observation of Vital signs: • Recommended: systolic and diastolic blood pressure including site of measurement, pulse rate, respiratory rate • Optional: 02 saturation, temperature, pain (scale), ...	

#	Data Element	Description	Preferred Code System (*) (**)
A.2.7.1.4.2	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
A.2.7.1.4.3	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)
A.2.7.1.5	**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.	
A.2.7.1.5.1	Observation Note	A narrative description of the observation. It should be structured by the organ system (e.g. head, neck, body, arms, ...)	
A.2.7.2	**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/	
A.2.7.2.1	Description	Need for the patient to be continuously assessed by third parties; functional status may influence decisions about how to plan and administer treatments	
A.2.8	Care plan and other recommendations after discharge.		
A.2.8.1	**Care plan**	Care plan after discharge. Multiple care plans could be provided.	
A.2.8.1.3	Description	A description of the scope and nature of the plan.	
A.2.8.2	**Medication summary**	**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.**	

#	Data Element	Description	Preferred Code System (*) (**)
A.2.8.2.1	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
A.2.8.2.2	Reason for change	Reason for change of medication	hl7:reason-medication-status-codes
A.2.8.2.3	Code	Product code.	IDMP
A.2.8.2.4	Brand name	Brand name if biological medicinal product or when justified by the health professional (ref. Commission Directive 2012/52/EU)	
A.2.8.2.5	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)
A.2.8.2.6	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	UCUM EDQM Standard terms
A.2.8.2.7	Pharmaceutical dose form	The form in which a pharmaceutical product is presented in the medicinal product package (e.g. tablet, syrup)	EDQM Standard terms
A.2.8.2.8	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	
A.2.8.2.9	Route of administration	Path by which the pharmaceutical product is taken into or makes contact with the body.	EDQM Standard terms
A.2.8.2.10	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).	
A.2.8.2.11	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	UCUM

#	Data Element	Description	Preferred Code System (*) (**)
		patient has not been provided with the drug (e.g. if the patient has a sufficient supply of the drug)	
A.2.8.3	**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.**	

Table 3: Hospital discharge report dataset for patient clinical data - core parts

(*) In a foreseeable future, the suggested preferred vocabularies might be superseded or complemented, as mentioned in Guidelines Article 11(2).

(**) The Preferred code system(s) has been selected based on adequacy to convey the information using the methodology of the Subgroup on Semantics. When more alternative international code systems are available, all are listed when it is assumed to be unlikely that agreement can be reached short term. Mapping between code systems could be proposed for specific use cases.

4.3 HOSPITAL DISCHARGE REPORT BODY – Full Dataset

This section specifies complete dataset for Hospital Discharge Reports. Elements which are not marked as Core might be added to the Core dataset in specific HDR implementations. To achieve international alignment for possible data exchange, these elements might be considered in future versions of this Guideline for inclusion in the Core dataset.

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
A.2.0	**Hospital Discharge Report in its narrative form**			**Core**
A.2.1	**Advance directives**			
A.2.1.1	**Living will**	Only directives being expressed during current inpatient stay. Multiple records of living wills could be provided.		
A.2.1.1.1	Date and time	The date and time on which the living will was recorded.	ISO 8601	
A.2.1.1.2	Type	Type of a living will, e.g. Do not resuscitate, donorship statement, power of attorney etc.	SNOMED CT	

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
A.2.1.1.3	Comment	Comment on the living will.		
A.2.1.1.4	Related conditions	The problem or disorder to which the living will applies. Multiple fields could be provided.	ICD-10* SNOMED CT 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.		
A.2.2	**Alerts**			**Core**
A.2.2.1	**Allergy and Intolerance**	A record of allergies and intolerances (primarily to be used for new allergies or intolerances that occurred during the hospital stay).		**Core**
A.2.2.1.1	Allergy description	Textual description of the allergy or intolerance		Core
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	
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
A.2.2.1.4	Severity	Severity of the clinical manifestation of the allergic reaction.	SNOMED CT	
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	
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).	ISO 8601 SNOMED CT (Age group)	
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	

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
			SNOMED CT (Age group)	
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, …	
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	
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
A.2.2.2	**Medical alerts (relevant for the respective hospital stay)**			**Core**
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 anticoagulants or immunosuppressants; implanted devices.	SNOMED CT LOINC	Core

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
		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**
A.2.3.1	Encounter type	The type of the encounter whether inpatient or short stay encounter.	hl7v3:ActEncounterCode	
A.2.3.2	Encounter note	A narrative description of the encounter course.		
A.2.3.3	**Admission**			**Core**
A.2.3.3.1	Admission urgency	Admission type, either emergency or planned	hl7:v3-xEncounterAdmissionUrgency	Core
A.2.3.3.2	Admission date	Admission date and time.	ISO 8601	Core
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.		
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)].		
A.2.3.3.5	Admitting organisation ID	The healthcare provider organisation identifier.		
A.2.3.3.6	Admitting organisation	The healthcare provider organisation information.		Core
A.2.3.3.7	Admit Source	From where the patient was admitted (e.g. physician referral, transfer).	Hl7:admit-source	
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.		
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)].		

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
A.2.3.3.10	Referring organisation ID	The healthcare provider organisation identifier.		
A.2.3.3.11	Referring organisation	The healthcare provider organisation information.		
A.2.3.4	**Admission reason**			**Core**
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
A.2.3.4.2	Admission reason comment	Explanation of the reason for the encounter.		Core
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	
A.2.3.5	**Discharge**			**Core**
A.2.3.5.1	Discharge date	Discharge date and time	ISO 8601	Core
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
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
A.2.3.6	**Location - All locations/departments where the patient stayed (was boarded) within the hospital.**			**Core**
A.2.3.6.1	Period	Time period during which the patient was present at the location		Core
A.2.3.6.2	Organisation Part ID	The organisation's part identifier.		
A.2.3.6.3	Organisation Part Name	Full name of the organisation part, e.g. Name of the department		Core
A.2.3.6.4	Organisation Part Details	Address, contact names and contact details, specialty of the organisation part.	SNOMED CT	Core

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
A.2.4	**Admission evaluation - Admission status should be reported exceptionally only if it is relevant to ensure continuity of care.**			
A.2.4.1	**Objective findings**			
A.2.4.1.1	Date and time	Date and time of the examination	ISO 8601	
A.2.4.1.2	**Anthropometric observations**	Observation of Body weight and height of the patient, BMI, circumference of head, waist, hip, limbs and skin fold thickness. Result of the observation includes text, numeric and coded results of the measurement including measurement units. Multiple observations could be provided.		
A.2.4.1.2.1	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	
A.2.4.1.2.2	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)	
A.2.4.1.3	**Vital signs**	Vital signs observation: • Recommended: Pulse rate, respiratory rate, systolic and diastolic blood pressure with site information • Optional: 02 saturation, temperature, pain (scale), …		
A.2.4.1.3.1	Result description	Narrative representation of the observation result and findings.		
A.2.4.1.3.2	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	
A.2.4.1.3.3	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)	

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
A.2.4.1.4	**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.		
A.2.4.1.4.1	Observation Note	A narrative description of the observation. It should be structured by the organ system (e.g. head, neck, body, arms, ...)		
A.2.4.2	**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/			
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		
A.2.4.2.2	Onset Date	Onset date of a condition	ISO 8601	
A.2.4.2.3	Functional assessment description	Description of the functional assessment	ICF	
A.2.4.2.4	Functional assessment date	Date of the functional assessment	ISO 8601	
A.2.4.2.5	Functional assessment result	Functional assessment result value	ICF	
A.2.5	**Patient history** (might include information about provenance of the information)			
A.2.5.1	**Medical history**			
A.2.5.1.1	**History of problems**	A list of conditions of a patient that the patient suffered in the past or still suffers. Unlike diagnostic summary, medical history is not only a list of problems, but could contain broader description of the condition and its progress, details about treatment including medication and patient response to treatment. Past problem section (unlike the same section of the patient summary) should include only conditions that are important for continuity of care. This section, if provided, complements the diagnostic summary section of the discharge report.		

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
A.2.5.1.1.1	Problem description	Problem specification		
A.2.5.1.1.2	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	
A.2.5.1.1.3	Onset date	Onset date of the problem/condition	ISO 8601	
A.2.5.1.1.4	End date	The date or estimated date that the condition resolved or went into remission.	ISO 8601	
A.2.5.1.1.5	Clinical status	Status of the condition/problem (active, resolved, inactive, ...)	hl7:condition-clinical	
A.2.5.1.1.6	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).		
A.2.5.1.1.7	Severity	A subjective assessment of the severity of the condition as evaluated by the clinician.	SNOMED CT	
A.2.5.1.1.8	Stage	Stage/grade, usually assessed formally using a specific staging/grading system.	e.g. TNM, ICD-O-3	
A.2.5.1.2	**Devices and Implants**			
A.2.5.1.2.1	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	

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
A.2.5.1.2.2	Device ID	Normalised identifier of the device instance such as UDI according to REGULATION (EU) 2017/745		
A.2.5.1.2.3	Implant date	The date and time the device was implanted or when its use began.	ISO 8601	
A.2.5.1.2.4	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	
A.2.5.1.2.5	Reason	The medical reason for use of the medical device.	ICD-10 SNOMED CT Orphacode if rare disease is diagnosed	
A.2.5.1.3	**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.		
A.2.5.1.3.1	Procedure code	Procedure code	SNOMED CT LOINC, NPU (for laboratory procedures) IPS Absent and Unknown Data	
A.2.5.1.3.2	Procedure description	Narrative description of the procedure		
A.2.5.1.3.3	Body site	Procedure target body site and laterality	SNOMED CT	
A.2.5.1.3.4	Procedure date	Date and time when procedure was performed	ISO 8601	
A.2.5.1.3.5	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	

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
			Orphacode if rare disease is diagnosed	
A.2.5.1.3.6	Outcome	The outcome of the procedure - did it resolve the reasons for the procedure being performed? Applicable mainly on surgical procedures.	SNOMED CT	
A.2.5.1.3.7	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.		
A.2.5.1.4	**Vaccination**	Vaccination history of the patient.		
A.2.5.1.4.1	Disease or agent targeted	Disease or agent that the vaccination provides protection against	ICD-10* SNOMED CT	
A.2.5.1.4.2	Vaccine/prophylaxis	Generic description of the vaccine/prophylaxis or its component(s)	SNOMED CT ATC (IDMP/ EMA SPOR SMS)	
A.2.5.1.4.3	Vaccine medicinal product	Medicinal product name		
A.2.5.1.4.4	Marketing Authorisation Holder	Marketing Authorisation Holder or manufacturer (Identifier and name)	EMA's Organisations Management Service (EMA SPOR OMS)	
A.2.5.1.4.5	Number in a series of vaccinations / doses	Order in the vaccination course.		
A.2.5.1.4.6	Date of vaccination	The date and time when the vaccination was administered	ISO 8601	
A.2.5.1.4.7	Next vaccination date	The date when the vaccination is planned to be given/repeated (e.g. next dose)	ISO 8601	
A.2.5.1.5	**Epidemiological history**	Travel history and infectious contacts		
A.2.5.1.5.1	**Infectious contacts**	Infectious contacts of the patient		

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
A.2.5.1.5.1.1	Time period	A date and duration or date time interval of contact. Partial dates are allowed.	ISO 8601	
A.2.5.1.5.1.2	Infectious agent	Information about a suspected infectious agent or agents the person was exposed to.	ICD-10* (chapter 1) SNOMED CT	
A.2.5.1.5.1.3	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.	SNOMED CT UCUM (measurement units)	
A.2.5.1.5.1.4	Country	Country in which the person was potentially exposed to an infectious agent.	ISO 3166	
A.2.5.1.5.1.5	Additional information	A textual note with additional information about infectious contact.		
A.2.5.1.5.2	**Travel history**	Travel history reported by the patient. Multiple records could be provided.		
A.2.5.1.5.2.1	Time period	Start and end date or end date and duration of stay in a country. Partial dates are allowed.	ISO 8601	
A.2.5.1.5.2.2	Country visited	A country visited by the patient.	ISO 3166	
A.2.5.1.5.2.3	Comment	Relevant notes on the travel stay.		
A.2.5.2	**Family history**	Information about serious illnesses in close blood relatives with known or suspected genetic potential or with possible impact on patient care.		
A.2.5.2.1	Patient relationship	The family relation between the related person and the patient.	hl7:v3-RoleCode	
A.2.5.2.2	Date of birth	Full or partial date of birth	ISO 8601	
A.2.5.2.3	Age or date of death	Age or date of the death of the family member.	ISO 8601	
A.2.5.2.5	Condition	Medical problems this person suffers or suffered.	ICD-10* SNOMED CT	

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
			Orphacode if rare disease is diagnosed	
A.2.5.2.6	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	
A.2.5.3	**Social determinants of health**	Information about social determinants of health.		
A.2.5.3.1	**Participation in society**	Participation in society details.		
A.2.5.3.1.1	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.		
A.2.5.3.1.2	Hobby	An activity the patient enjoys doing in their free time.		
A.2.5.3.1.3	Social network	A description of the patient's social network, such as family, neighbours and friends.		
A.2.5.3.2	**Education**			
A.2.5.3.2.1	Education level	Indication of the highest level of education achieved.	hl7:v3.EducationLevel	
A.2.5.3.2.2	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).		
A.2.5.3.3	**Living situation**	Household type and other related living situation information.		
A.2.5.3.3.1	House type	Type of home the patient lives in.	SNOMED CT	
A.2.5.3.3.2	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	

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
A.2.5.3.3.3	Living conditions	Conditions that affect the accessibility of the home or the stay in the home. Multiple data elements could be provided.	SNOMED CT	
A.2.5.3.4	**Family situation**	Family situation details.		
A.2.5.3.4.1	Comment	A comment on the family situation.		
A.2.5.3.4.2	Family composition	The family composition describes the patient's home situation and the form of cohabitation. A family can consist of one or more people.	SNOMED CT	
A.2.5.3.4.3	Marital status	A person's marital status according to the terms and definition in the national civil code.	hl7: v3-MaritalStatus	
A.2.5.3.4.4	Number of children	The number of children the patient has. Children in the context of this information model include stepchildren, foster children, biological and adopted children.		
A.2.5.3.4.5	Number of children at home	The number of children living at home with the patient.		
A.2.5.3.4.6	Child details	Child age, co-living status and comment. Multiple child details could be provided.		
A.2.5.3.4.7	Care responsibility	The activities the patient carries out to care for a dependent family member.		
A.2.5.4	**Use of substances**			
A.2.5.4.1	**Alcohol use**	Alcohol consumption by the patient. Multiple records on alcohol use could be provided.		
A.2.5.4.1.1	Status	The status of the patient's alcohol use.	SNOMED CT	
A.2.5.4.1.2	Period and quantity	Period of use and amount (The extent of the patient's alcohol use in units of alcohol per time period.)		
A.2.5.4.1.3	Comment	Textual comment.		
A.2.5.4.2	**Tobacco use**	Represent smoking or tobacco habits. Multiple records on tobacco use could be provided.		
A.2.5.4.2.1	Status	The status of the patient's tobacco use.	SNOMED CT	
A.2.5.4.2.2	Period and quantity	Period of use and amount (The extent of the patient's tobacco use in units of alcohol per time period.)		
A.2.5.4.2.3	Comment	Textual comment.		

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
A.2.5.4.3	**Drug consumption**	Consumption of drugs and other substances (in terms of abuse).		
A.2.5.4.3.1	Status	The status of the patient's drug use.	SNOMED CT	
A.2.5.4.3.2	Period and quantity	Period of use and amount.		
A.2.5.4.3.3	Drug or medication type	Type of the drug consumption	SNOMED CT	
A.2.5.4.3.4	Route of administration	Route or routes of administration	EDQM Standard Terms	
A.2.5.4.3.5	Comment	Textual comment		
A.2.6	**Course of hospitalisation (Hospital stay)**			**Core**
A.2.6.1	**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, codable, 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 section.		**Core**
A.2.6.1.1	Problem description	Problem specification in narrative form		Core
A.2.6.1.2	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	Core

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
			Absent and Unknown Data	
A.2.6.1.3	Onset date	Onset date of a problem/condition	ISO 8601	Core
A.2.6.1.4	End date	The date or estimated date that the condition resolved or went into remission.	ISO 8601	
A.2.6.1.5	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
A.2.6.1.6	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
A.2.6.1.7	Clinical status	Status of the condition/problem (active, resolved, inactive, ...)	hl7:condition-clinical	
A.2.6.1.8	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).		
A.2.6.1.9	Severity	A subjective assessment of the severity of the condition as evaluated by the clinician.	hl7:condition-severity	
A.2.6.1.10	Stage	Stage/grade usually assessed formally using a specific staging/grading system. Multiple assessment systems could be used.	e.g. TNM ICD-O-3	

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
A.2.6.2	**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**
A.2.6.2.1	Procedure code	Procedure code	SNOMED CT IPS Absent and Unknown Data	Core
A.2.6.2.2	Procedure description	Narrative description of the procedure		Core
A.2.6.2.3	Body site	Procedure target body site and laterality	SNOMED CT	
A.2.7.2.4	Procedure date	Date and time when procedure was performed	ISO 8601	Core
A.2.6.2.5	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	
A.2.6.2.6	Outcome	The outcome of the procedure - did it resolve the reasons for the procedure being performed?	SNOMED CT	
A.2.6.2.7	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	

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
A.2.6.2.8	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
A.2.6.3	**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
A.2.6.3.1	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.	SNOMED CT EMDN IPS Absent and Unknown Data	Core
A.2.6.3.2	Device ID	Normalised identifier of the device instance such as UDI according to REGULATION (EU) 2017/745		
A.2.6.3.3	Implant date	The date and time the device was implanted or when its use began.	ISO 8601	Core
A.2.6.3.4	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
A.2.6.3.5	Reason	The medical reason for use of the medical device.	ICD-10* SNOMED CT Orphacode if rare disease is diagnosed	
A.2.6.5	**Pharmacotherapy**	Selected drug treatment during hospitalisation. Medicinal products that were administered during hospitalisation and whose administration has already been discontinued before discharge. Only products which are important for continuity of care (antibiotics other than completely routine, corticosteroids in high doses, etc.) will be listed. Products which administration will continue after discharge will be also recorder in the Medication summary section.		**Core**

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
		Medicinal products, the administration of which was started during hospitalisation, but is also recommended after discharge, will be listed in the summary table in the recommendation section.		
A.2.6.5.1	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	
A.2.6.5.2	Code	Product code	IDMP	Core
A.2.6.5.3	Intended use	Indication intended use as: prevention or treatment Example: prophylaxis, treatment, diagnostic, anaesthesia.		
A.2.6.5.4	Brand name	Brand name if biological medicinal product or when justified by the health professional (ref. Commission Directive 2012/52/EU)		Core
A.2.6.5.5	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)	
A.2.6.5.6	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	UCUM EDQM Standard terms	
A.2.6.5.7	Pharmaceutical dose form	The form in which a pharmaceutical product is presented in the medicinal product package (e.g. tablet, syrup)	EDQM Standard Terms	
A.2.6.5.8	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		
A.2.6.5.9	Route of administration	Path by which the pharmaceutical product is taken into or makes contact with the body.	EDQM Standard Terms	
A.2.6.5.10	Period of treatment	The time interval when the patient was, or was not, given the medication.		Core
A.2.6.6	**Significant Observation Results**	Results of significant functional, diagnostic, and imaging examinations to ensure continuity of care, performed during hospitalisation. Results of examinations ordered but not yet delivered should be presented separately from results already delivered.		
A.2.6.6.1	Date	Date and time of the observation	ISO 8601	Core

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
A.2.6.6.2	Observation status	Status of the observation (e.g. registered, preliminary, final)	hl7:observation-status	
A.2.6.6.3	Result description	Narrative representation of the observation result and findings.		Core
A.2.6.6.4	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 aspects of the observation.	LOINC NPU SNOMED CT ISO 8601	Core
A.2.6.6.5	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.	SNOMED CT UCUM (measurement units)	Core
A.2.6.6.7	Reporter	With certain observation results, e.g. there may also be an interpreter or a person responsible for validation.		
A.2.6.7	**Synthesis**	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**
A.2.6.7.1	Problem synthesis	Summary description of the reason and course of hospitalisation for a specific problem.		Core
A.2.6.7.2	Clinical reasoning	The clinical summary can be concluded with a clinical consideration (diff. diagnosis, explanation of context, etc.) for clinically complex conditions.		
A.2.7	**Discharge details** (structured information should be provided, however if not available, at least a summary note should be present).			**Core**
A.2.7.1	**Objective findings**			Core
A.2.7.1.1	Date	Date and time of the examination at or before discharge	ISO 8601	
A.2.7.1.3	**Anthropometric observations**	Observation of Body weight and height of the patient, BMI, circumference of head, waist, hip, limbs and skin fold thickness. Result of the observation includes text, numeric and coded results of the measurement including measurement units. Multiple observations could be provided.		**Core**
A.2.7.1.3.1	Result description	Narrative representation of the observation result and findings.		
A.2.7.1.3.2	Observation details	Observation details include code that identifies observation, specification of the observed body structure or specimen, date and time of the specimen	SNOMED CT	Core

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
		collection, observation method or protocol used and other aspects of the observation.	LOINC ISO 8601	
A.2.7.1.3.3	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
A.2.7.1.4	**Vital signs**	Observation of Vital signs: • Recommended: systolic and diastolic blood pressure including site of measurement, pulse rate, respiratory rate • Optional: 02 saturation, temperature, pain (scale), ...		Core
A.2.7.1.4.1	Result description	Narrative representation of the observation result and findings.		
A.2.7.1.4.2	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
A.2.7.1.4.3	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)	Core
A.2.7.1.5	**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**
A.2.7.1.5.1	Observation Note	A narrative description of the observation. It should be structured by the organ system (e.g. head, neck, body, arms, ...)		Core
A.2.7.2	**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.		**Core**

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
		For details see: https://paciowg.github.io/functional-status-ig/		
A.2.7.2.1	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
A.2.7.2.2	Onset Date	Onset date of a condition	ISO 8601	
A.2.7.2.3	Functional assessment description	Description of the functional assessment	e.g. ICF	
A.2.7.2.4	Functional assessment date	Date of the functional assessment	ISO 8601	
A.2.7.2.5	Functional assessment result	Functional assessment result value	e.g. ICF	
A.2.7.3	Discharge note	Discharge summary note		
A.2.8	Care plan and other recommendations after discharge.			**Core**
A.2.8.1	**Care plan**	Care plan after discharge. Multiple care plans could be provided.		**Core**
A.2.8.1.1	Title	Human-friendly name for the care plan (e.g. Hip replacement care plan)		
A.2.8.1.2	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	
A.2.8.1.3	Description	A description of the scope and nature of the plan.		Core
A.2.8.1.4	Plan Period	Indicates when the plan did (or is intended to) come into effect and end.		
A.2.8.1.5	Other details	Other structured and coded details, care team, goals to be achieved.		
A.2.8.1.6	Activity	Actions to occur as part of the plan.		
A.2.8.1.6.1	Kind	A description of the type of care plan activity. For example, a MedicationRequest, a ServiceRequest, or a CommunicationRequest.	hl7:resource-types	
A.2.8.1.6.2	Activity description	A detailed description of the activity.		

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
A.2.8.1.6.3	Specific attributes	Specific structured attributes per each activity type expressed by the Activity kind element, E.g., specific attributes for prescription request, appointment, etc.		
A.2.9.2	**Medication summary**	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.		**Core**
A.2.8.2.1	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
A.2.8.2.2	Reason for change	Reason for change of medication	hl7:reason-medication-status-codes	Core
A.2.8.2.3	Code	Product code.	IDMP	Core
A.2.8.2.4	Brand name	Brand name if biological medicinal product or when justified by the health professional (ref. Commission Directive 2012/52/EU)		Core
A.2.8.2.5	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
A.2.8.2.6	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	UCUM EDQM Standard terms	Core
A.2.8.2.7	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
A.2.8.2.8	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
A.2.8.2.9	Route of administration	Path by which the pharmaceutical product is taken into or makes contact with the body.	EDQM Standard terms	Core
A.2.8.2.10	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

#	Data Element	Description	Preferred Code System (*) (**)	Core Element
A.2.8.2.11	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)	UCUM	Core
A.2.8.3	**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

Table 4: Hospital discharge report dataset for patient clinical data - additional parts

(*) In a foreseeable future, the suggested preferred vocabularies might be superseded or complemented, as mentioned in Guidelines Article 11(2).

(**) The Preferred code system(s) has been selected based on adequacy to convey the information using the methodology of the Subgroup on Semantics. When more alternative international code systems are available, all are listed when it is assumed to be unlikely that agreement can be reached short term. Mapping between code systems could be proposed for specific use cases.

5. REFERENCES AND EXAMPLES

5.1 Common Semantic Strategy

The Release 1 of the eHealth Network guidelines on Hospital discharge report was prepared in full alignment with the goals, roadmap and governance proposed in the Common Semantic Strategy for health in EU, adopted by the eHealth Network in Nov 2019.

5.2 Existing EHN guidelines

The General Guidelines - Guidelines on the electronic exchange of health data under Cross-Border Directive 2011/24/EU

Link: https://health.ec.europa.eu/system/files/2022-06/ehealth_health-data_electronic-exchange_general-guidelines_en.pdf

The eHN Guideline on Patient Summary (Release 3.3)

Link: https://health.ec.europa.eu/system/files/2023-10/ehn_guidelines_patientsummary_en.pdf

The eHN Laboratory Result Guidelines (Release 1.1)

Link: https://health.ec.europa.eu/system/files/2023-07/ehealth_ehn-lab-results-guideline_en.pdf

5.3 European Health Data Space & European Electronic Health Record exchange format

The Hospital Discharge Report concept originates from the Recommendation on a European Electronic Health Record exchange format (EEHRxF) and is being taken forward by the European Health Data Space regulation proposal.

Link: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022PC0197

5.4 Hospital Discharge Report Example

Hospital discharge report

Creation date: 18.3.2023 v 08:15 | Version: 1

Vzorná nemocnice

Expand menu Expand all

Patient: **Ing. Jana Example, PhD.** (Ž) ČP: 999999/9999 (VZP)

Gender	Female	**Address:**
Maiden name	Dvořáková	Ulice 13a
Date of birth	xx.xx.1935	150 00 Praha 5
Place of birth	Žilina	
		Lega guardiens:
Insurance namber	9999999999	**JUDr. Eliáš Example**
Health insurance house	Všeobecná zdravotní pojišťovna (111)	Ulice 1234
Marital status	maried	516 00 Město
Citizenship	Czech Republic	Mobile +420 600 000 111
Communication languages	Czech	Phone (home) +420 222 222 222
	Slovak, preferred	Phone (work) +420 333 333 333
Phone (home)	+420 216 200 100	
Mobile	+420 603 200 100	
Email	email@provider.cz	

Hospital encounter: Example hospital
In-patient encounter from 09.10.2022 to 17.10.2022

Example hospital
Rovná 345
550 00 Malá Obec, Středočeský kraj

Phone +420 613 111 222 0
Fax +420 201 201 201
info@nempriklad.cz
http://www.nempriklad.cz

Case number: Pn123456
Admission date and time: 09.05.2022, 10:46
Discharge date and time: 17.05.2022, 12:00

Contact person:
Prof. Jan Voštěp
Phone (work) +420 212 444 555

Allergies, Intolerances and Medical Allerts:

- Drug Allergy: Penicillin
- Permanent anticoagulant treatment in permanent atrial fibrillation, transient hemiparesis after discontinuation
- Repeated loss of blood in the stool

This is a sample discharge report containing fictitious information that does not represent any real case. The report illustrates the basic technical capabilities of the design.

Admission reason

Bleeding into the digestive system

Hospital stay

Diagnostic summary

Diagnosis / Problem description	Onset date	Resolution date	Category	Code
Treated conditions				
Angiectasia in ascending colon	10.05.2022	10.05.2022	POA	*K55.2*
Recurrent lossy hyposideremic anemia from angiectasia in the ascending colon	30.07.2016		POA	*D50.0*
Polyp of the sigmoid	10.05.2022		POA	
Transient ischemic attack (TIA) with transient left-sided hemiparesis	11.5.2022	11.5.2022	HAC	*G45.9*
Permanent atrial fibrillation	2011		POA	*I48.1*
Amiodarone hypothyroidism	2018		POA	*E03.2 Y52.2*
Other conditions (untreated)				
Stricture of the right ureter	2020			
Postmenopausal osteoporosis, stable finding	2018			*M81.0*
Varicose veins of the lower limbs	2014			*I83.9*
Isolated hypercholesterolemia				*E78.0*
Presbyacusis bilat.				*H91.1*

Surgeries and other "instrumental" interventions

Procedure Date	Description	Outcome	Complications
15.5.2022	Destruction of angiectasias in the ascending colon by argon plasmacoagulation via colonoscopy and polypectomy in the sigmoid colon	Successful	None

Medical devices and implants

No implants or medical devices

Other significant treatment

Fraxiparine 0.3 ml every 12 hours sc. (when discontinuing oral anticoagulation)

Results not yet delivered

Histology from a resected polyp in the colon.

Clinical synthesis

87-year-old patient treated with long-term (since 2016) parenteral iron replacement and repeated erythrocyte transfusions. However, at the beginning of March 2018, a drop of Hb of almost 40 g/l in less than 3 weeks was detected, therefore admitted to our clinic for blood transfusions and investigation of the etiology of the losses.

Gastrofibroscopy without evidence of bleeding, colonoscopy showed blood in the colon, but the source was not found, presumably in the small intestine.

Source of bleeding was not detected even by double balloon enteroscopy and repeat capsule enteroscopy (2022). In the following period, the hemoglobin value was above 100 g/L with a few exceptions.

Now electively admitted for an endoscopic examination of the terminal ileum by colonoscopy, which revealed angiectasias in the ascending colon (apparently covered by blood in the earlier acute colonoscopy) and a small polyp of the sigmoid colon (biopsy taken). After discontinuation of anticoagulant therapy, transient ischemic attack with left-sided hemiparesis occurred on May 11, 2022, which resolved spontaneously during transfer for brain CT scan.

Therefore, she was secured with heparin and switched to the lowest still effective dose of direct anticoagulant. Subsequently, destruction by argon plasmacoagulation via colonoscopy was performed without complications. Prior to dimission, i.v. iron was administered.

Status at discharge

Objective findings

unchanged since admission

Functional status

unchanged since admission

Recommendations

Social and health measures after discharge

-

Regime and dietary measures

existing regime, food saving

Medication summary

Status	Medicinal product	Administration	Dosage	Note
Stopped	Pradaxa 110 mg	2 x day	1 tbl	
Changed	none			
New	Eliquis 2,5 mg	2 x day	1 tbl	
Continuous	Euthyrox 75 ug	daily	1-0-0-0	
	Fludrokortizon tbl.	daily	1/4-1/4-0-0	
	Digoxin tbl. 0,125 mg	daily	1-0-0-0	
	Calcichew D3 tbl	daily	0-0-1-0	
	Cilkanol tbl.	daily	1-0-1-0	
	Ascorutin tbl.	daily	1-0-1-0	

Care plan

Recommended care

follow-up blood count and feraemia in one week, stool examination for occult bleeding in two weeks if haemoglobin drops - arranged by GP

Dates of check-ups

Check-up at the internal outpatient clinic (**after prior arrangement by phone on +420 123 456**)

Optional sections of the hosptital discharge letter

Patient history

Medical history

Past problems

Diagnosis / Problem	Onset date	Resolution date	Previous therapy	Clinical status
Permanent atrial fibrillation			Anticoagulant therapy with dabigatran and rate-control digoxin since 11/2011; paroxysmal fibrillation was first detected at about 55 years of age, first treated with propafenone, then amiodarone + beta-blockers (but these were discontinued immediately due to a tendency to hypotension), dronedarone administration was also tried. Negative coronary angiography in 2000.	Active
Amiodarone hypothyroidism			Euthyrox substitution therapy	Active
Recurrent states of weakness with hypotension			since 11/2011 treated with small doses of mineralocorticoids	
Isolated hypercholesterolemia	at about 55 years old		Hypolipidemic treatment in the past, then with satisfactory values without treatment.	Inactive
Perceptual hearing loss			Dispensed at the ENT clinic Dr. XXX YYYY	Active
Varicose veins of the lower limbs	for many years		Currently no problems, uses compression stockings and venotonics (Detralex)	Inactive
Postmenopausal osteoporosis	2000		Stable finding. Dispensed in ###, high fracture risk, initially anti-osteoresorptive treatment with risedronate, then discontinued due to relative contraindication p.o. aminobisphosphonate; followed by denosumab without Hospital Acquired Condition (HAC)s. DXA 10/2017: bone density is in the osteoporosis zone.	Inactive
Bilateral cataract	06.2017		right eye surgery 2010, vitreomacular traction sy bilat. in right surgery (posterior capsulectomy 6/2017)	Inactive
Recurrent anemia	2013		Repeated colonoscopy (2014 polyp in the lienal flexure – endoscopically removed, 2015 small ulcer on the opposite Bauhinian valve with a bloody base; 4/2016 recurrence of polyp c. transversum (approx. 6x4 mm). Permanent substitution of Fe i.v.	Inactive
Hydronephrosis l.dx. with transient dysfunction of the right kidney	04.2020		during ascending ureteropyelography, a long relative stricture of the ureter was detected at the level of the SI joint	Inactive
Left humerus fracture				Inactive

History of procedures

Date	Procedure	Reason
04.2020	Insertion of a stent into the right ureter	Hydronephrosis l.dx. with transient dysfunction of the right kidney

Devices and Implants

Start date	End date	Description	Location
04.2020		Ureteral stent	Right ureter

Vaccination

Vaccination date	Description
10.2020	Anti-flu

Family history

father +65 for myocardial infarction

Social history

old-age pensioner, widow, lives with her daughter in a 1st category apartment, 3rd floor with elevator

Admission evaluation

Objective findings

BP 108/74 mmHg, heart rate 85/min slightly irregular. deviations from the physiological findings: heart action slightly irregular, 2 sounds, quiet systolic murmur in the tip area 1-2/6, abdomen above niveau, numerous peristaltic sounds on auscultation, lower limbs without swelling only slightly soaked bilaterally, signs of chronic venous insufficiency.

Functional status

walking, self-sufficient

Selected findings

Laboratory findings

Sample collection date: 30.10.2022 7:00

Test name	Value	Units	Reference range	Interpretation
Blood count				
Leukocytes	8,8	10^9/L	4,0-10,0	*
Erythrocytes	3,47	10^{12}/L	3,80-5,20	-
Hemoglobin	104	g/L	120-160	--
Erythrocyte (MCV, mean volume)	93,4	fL	82,0-98,0	*
Platelets	229	10^9/L	150-400	*

+++ Critical high ++ Significantly high + High * Normal - Low -- Significantly low --- Critical low

Imaging findings

CT brain 11.5.2022:
Diffuse brain atrophy of medium degree, without signs of a focal lesion. Defect of the occipital bone paramedially on the right - dop. scintigraphic examination.

Other findings

Coloscopic examination 10.5.2022:
In the sigmoid, a small polyp about 4 mm in size - a biopsy was taken, there are several angiectasias in the ascending colon, which bleed slightly when touched with the colonoscope. Other parts of the colon are without pathological findings. The ileocecal valve and terminal ileum could not be intubated.

Coloscopic examination 15.5.2022:
Total colonoscopy with destruction of four angiodysplasias in the ascending colon by argon plasma coagulation; the procedure was performed without complications
Total colonoscopy with treatment of angiodysplasia in the right colon with argon plasma coagulation: performed argon plasma coagulation of 4 small angiectasias in the transverse and 3 in the ascendens.

Konzilia

ENT consultation:
subjective pain 0/10 NRS, hearing impairment, obj. OM bilat ear canals quiet, eardrums intact, gray, no retraction, middle ear air audio bilat perc. hearing loss 40-40-40-50-55-60-70 dB, tympanum low A bilat. Dr. presbyacusis bilat

In case of any question please contact: MUDr. Jan Pudr
Phone (work) +420 613 345 344

Signature: Prof. Jan Voštěp, 17. 9. 2022 11:25
MUDr. Jan Pudr, 17. 9. 2022 11:35

More information about this document