Hospital Discharge Summary

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Shaping the Future of FHIR® in Europe

HL7® Europe

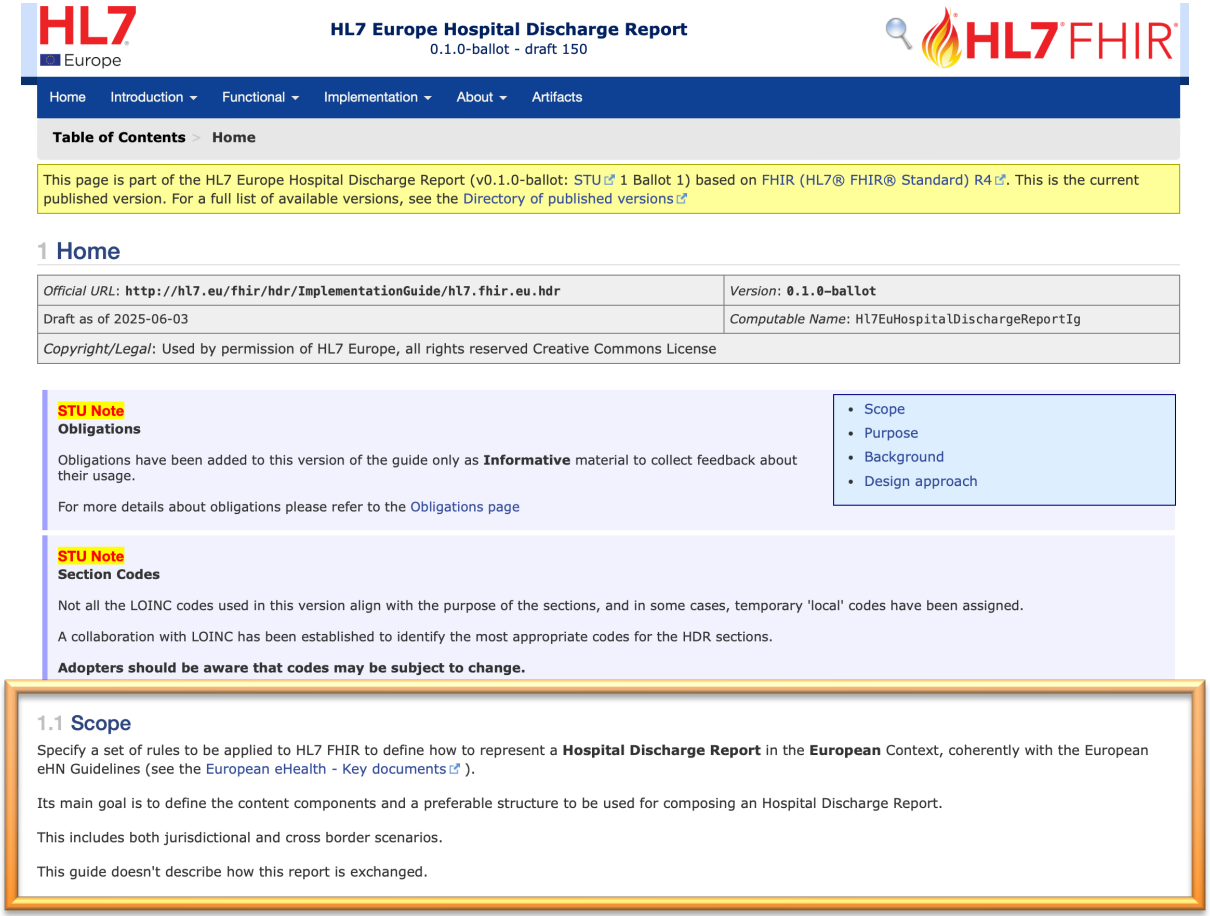
Working Group Meeting
1-5 December 2025
Cologne, Germany

Topics

- Hospital Discharge Summary – Overview and Status
- Sections
- Scope extension discussion (EHDS)
  - add outpatient visit reports
- Experiences from other Affiliates/Countries
- Next steps, summary

Overview

- 0.1.0-ballot
- Last update: June 2025
- Scope (so far)



HL7 Europe

HL7 Europe Hospital Discharge Report
0.1.0-ballot - draft 150

HL7 FHIR

Home | Introduction | Functional | Implementation | About | Artifacts

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This page is part of the HL7 Europe Hospital Discharge Report (v0.1.0-ballot: STU 1 Ballot 1) based on FHIR (HL7® FHIR® Standard) R4. This is the current published version. For a full list of available versions, see the Directory of published versions

1 Home

Official URL: `http://hl7.eu/fhir/hdr/ImplementationGuide/hl7.fhir.eu.hdr`	*Version*: `0.1.0-ballot`
Draft as of 2025-06-03	*Computable Name*: `Hl7EuHospitalDischargeReportIg`
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STU Note
Obligations

Obligations have been added to this version of the guide only as **Informative** material to collect feedback about their usage.

For more details about obligations please refer to the Obligations page

- Scope
- Purpose
- Background
- Design approach

STU Note
Section Codes

Not all the LOINC codes used in this version align with the purpose of the sections, and in some cases, temporary 'local' codes have been assigned.

A collaboration with LOINC has been established to identify the most appropriate codes for the HDR sections.

Adopters should be aware that codes may be subject to change.

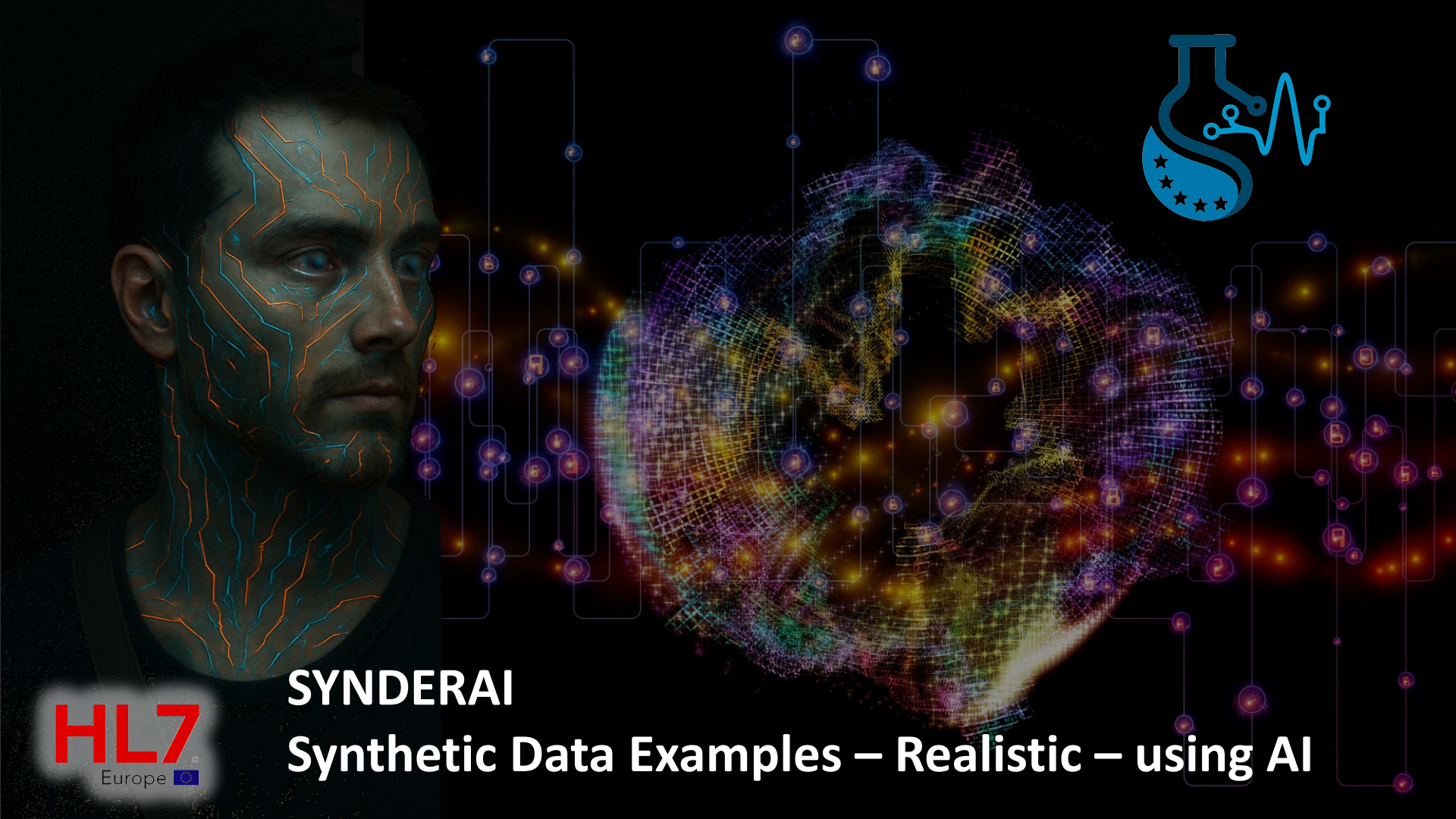
1.1 Scope

Specify a set of rules to be applied to HL7 FHIR to define how to represent a **Hospital Discharge Report** in the **European** Context, coherently with the European eHN Guidelines (see the European eHealth - Key documents).

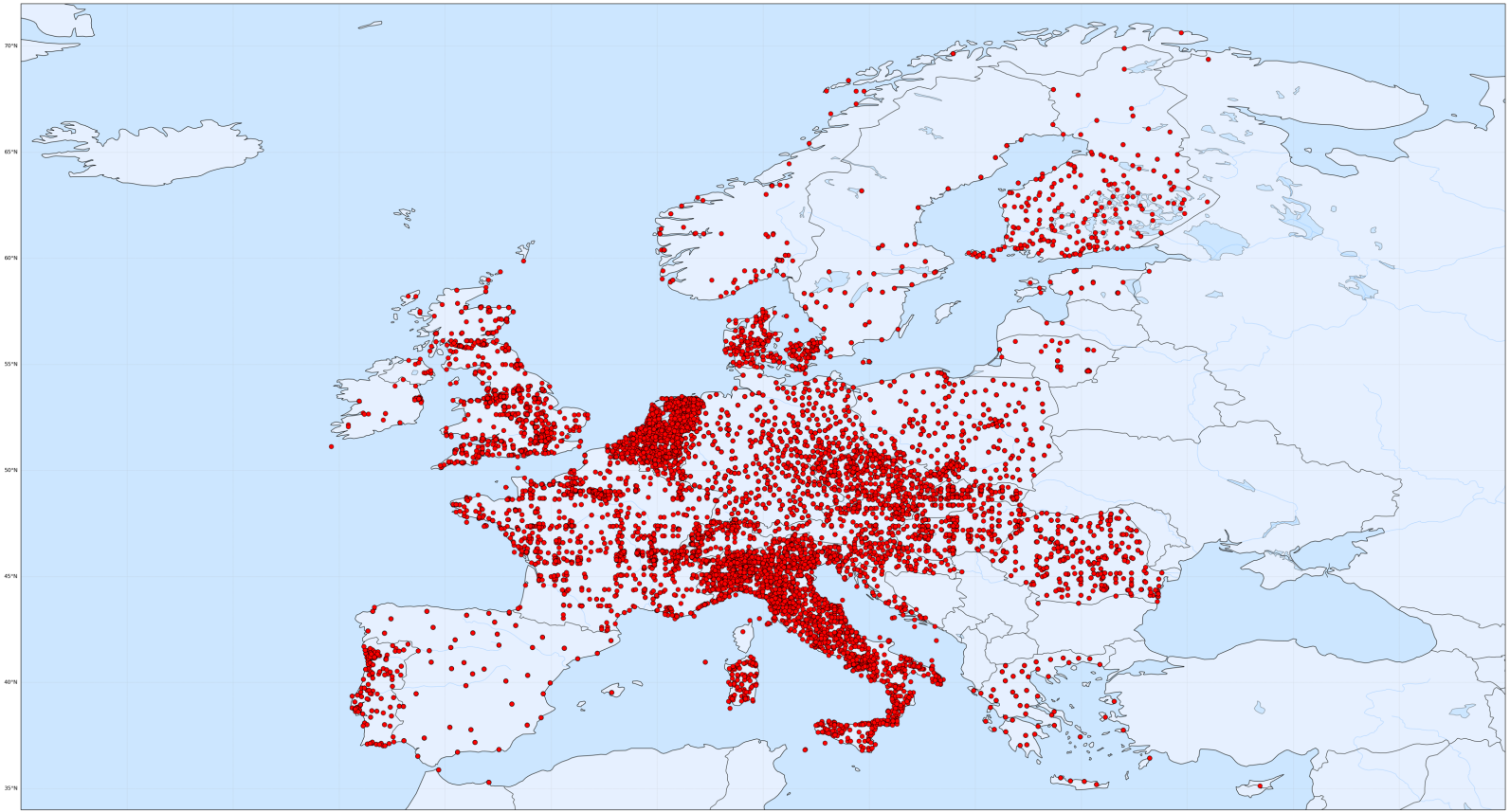
Its main goal is to define the content components and a preferable structure to be used for composing an Hospital Discharge Report.

This includes both jurisdictional and cross border scenarios.

This guide doesn't describe how this report is exchanged.


SYNDERAI
Synthetic Data Examples – Realistic – using AI
HL7
Europe

EU Citizen Dataset Geo Locations



HL7 Europe

Viewing

SYNDERAI is combined with Example **Visualization**, supported also by the Gravitate Health project, see vi7eti.net

Hospital Discharge Report

Patient		Author	Hospital Discharge summary	
Name:	**De Luca**, Luigi	dr **Zucchero-Combattente**, Augusto	Hospital Discharge Report	
DOB:	30-SEP-1966 (Age: 59)		**Casa di cura Villa S. Giuliana**	
Gender:	male		37128 Verona (it)	
ID:	3332-386800-1		Report Date:	**29-APR-2025**
			Hospital Admission:	01-APR-2025
			Hospital Discharge:	10-APR-2025

Admission evaluation

Mr. Luigi De Luca, a 57-year-old male, was admitted on 1st April following a pre-diabetic episode characterized by episodes of fatigue, polyuria, and increased thirst. Recent routine blood tests showed elevated fasting blood glucose and HbA1c levels that required further investigation.

When Mr De Luca arrived in the morning we recorded a fasting blood glucose level at 180 mg/dL. His HbA1c level was 7.8%. He seemed to be dehydrated, so that he immediately was sent to the ward for a full breakfast and fluid substitution.

Family History

Mr. Luigi has a family history of diabetes (type 2, mother and maternal grandmother).

Vital signs

Vital signs	1st April	10th April
Body weight	109 kg	108 kg
Body height	177 cm	
Blood Pressure	155 / 95 mmHg	150 / 90 mmHg

Viewing

SYNDERAI is combined with Example **Visualization**, supported also by the Gravitate Health project, see vi7eti.net

Significant Observation Results

Blood Glucose Monitoring Regular monitoring of fasting blood glucose levels and random blood glucose levels. Fasting glucose levels consistently ranged between 140-180 mg/dL.

Date	Fasting glucose [Moles/volume] in Blood	Range
1 April 2025	180 mg/dL	70 to 99 mg/dL
2 April 2025	140 mg/dL	70 to 99 mg/dL
3 April 2025	150 mg/dL	70 to 99 mg/dL
5 April 2025	140 mg/dL	70 to 99 mg/dL

HbA1c Test: An HbA1c level of 7.2%, confirming the diagnosis of Type 2 Diabetes Mellitus.

Date	Hemoglobin A1c [Mass/volume] in Blood	Range
1 April 2025	7.2%	< 5.7%

Oral Glucose Tolerance Test (OGTT): This test further confirmed impaired glucose tolerance.

Date	Glucose [Mass/volume] in Serum or Plasma --1 hour post dose glucose	Range
2 April 2025	180 mg/dL	70 to 99 mg/dL

Significant procedures

Lifestyle Consultation: Mr. De Luca met with a dietitian to discuss necessary changes in his diet, focusing on a low glycemic index diet and the need to monitor carbohydrate intake. He was also advised to engage in regular physical activity.

Diabetes Education: Mr. De Luca attended educational sessions on diabetes management, including the importance of regular blood sugar monitoring, recognizing hypoglycemia and hyperglycemia symptoms, and foot care.

Starting Pharmacotherapy with Metformin.

Viewing

SYNDERAI is combined with Example **Visualization**, supported also by the Gravitate Health project, see vi7eti.net

Hospital Discharge Report

Medications

Metformin 500 mg twice daily was started as the first-line treatment to help control blood glucose levels.

Medication administrations	Dose/Frequency	SNOMED
Metformin, oral tbl	500 mg, twice / day	765507008
Multivitamines	daily	

Follow-up

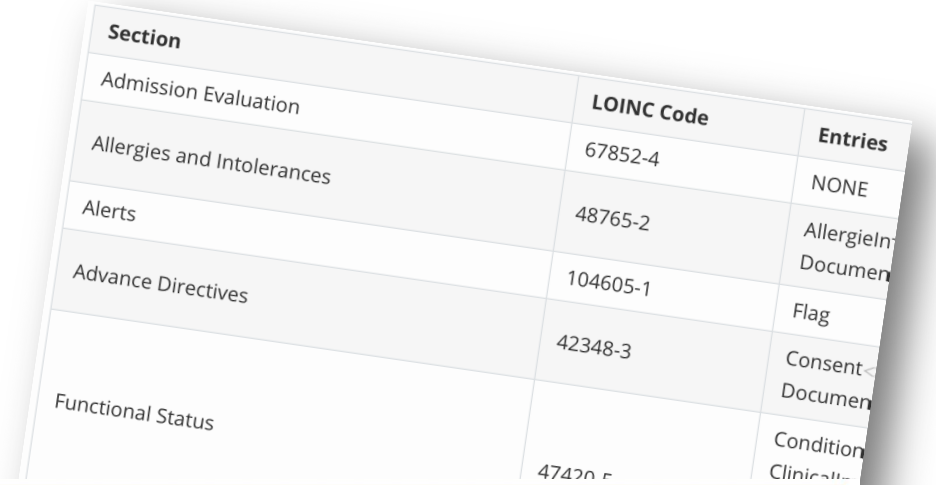
Follow-up	Activity	SNOMED
Endocrinology Clinic	Follow-up appointment in 2 weeks to assess response to treatment	306118006 Referral to endocrinology service (procedure)
Dietitian Consultation	Appointment in 1 month for further dietary planning	103699006 Referral to dietitian (procedure)
Routine Blood tests	Repeat HbA1c in 3 months	43396009 Hemoglobin A1c measurement (procedure)

Diagnosis at Discharge

Discharge Diagnoses	Codes
Type 2 Diabetes Mellitus – Newly diagnosed.	• Type 2 diabetes mellitus E11 (ICD-10) • Diabetes mellitus type 2 (disorder) 44054006 (SNOMED)

Overview

- Header components
- Sections in the Composition



Section	LOINC Code	Entries
Admission Evaluation	67852-4	NONE
Allergies and Intolerances	48765-2	AllergieInt Documen
Alerts	104605-1	Flag
Advance Directives	42348-3	Consent Documen
Functional Status	47420-5	Condition Clinicall

Section	LOINC	Entries
Upon Admission		
Admission Evaluation	67852-4	NONE
Problem List	11450-4	Condition

Overview

Section	LOINC	Entries
Upon Admission		
Admission Evaluation	67852-4	NONE
Problem List	11450-4	Condition
Patient Summary		
Alerts	104605-1	Flag
Immunizations	11369-6	Immunization ImmunizationsRecommendation DocumentReference
Advance Directives	42348-3	Consent DocumentReference
Use of Substances	substance-use	Observation
Alcohol Use	11331-6	Observation
Tobacco Use	11367-0	Observation
Drug use	11343-1	Observation
Allergies and Intolerances	48765-2	AllergieIntolerance, DocumentReference

Overview

During Stay		
Hospital Course	8648-8	NONE
Physical Findings	29545-1	-
Vital Signs	8716-3	Observation, DocumentReference, Vital Signs Profile
Anthropometric Data	59576-9	Observation, DocumentReference, Vital Signs Profile
Functional Status	47420-5	Condition, ClinicalImpression, Observation, DocumentReference, QuestionnaireResponse
Significant Procedures	10185-7	Procedure
Significant Results	30954-2	Observation Results: laboratory Observation: Imaging Finding
Pharmacotherapy	87232-5	MedicationStatement, MedicationRequest, MedicationDispense, MedicationAdministration

Overview

Upon Discharge		
Hospital discharge medications	75311-1	MedicationStatement, MedicationRequest, MedicationDispense
Hospital Discharge Instructions	8653-8	NONE
Discharge details	8650-4	NONE
Synthesis	67781-5	NONE
Plan of Care	18776-5	CarePlan, DocumentReference
Discharge Diagnosis	11535-2	Condition

Overview

History		
History of Procedures	47519-4	Procedure
Social History	29762-2	Observation, DocumentReference, QuestionnaireResponse Observation: SDOH
Family History	10157-6	FamilyMemberHistory DocumentReference
History of Medical Devices and Implants	46264-8	DeviceUseStatement, Procedure
Infectious contacts	infection-contact	Observation: Infectious Contact
Travel History	10182-4	Observation: country visited
Medical Devices	57080-4	DeviceUseStatement, Procedure
Patient History	35090-0	-
Past Medical History	11348-0	Condition
Payers	48768-6	Coverage
Care Team	85847-2	CareTeam
Attachments	77599-9	DocumentReference Binary

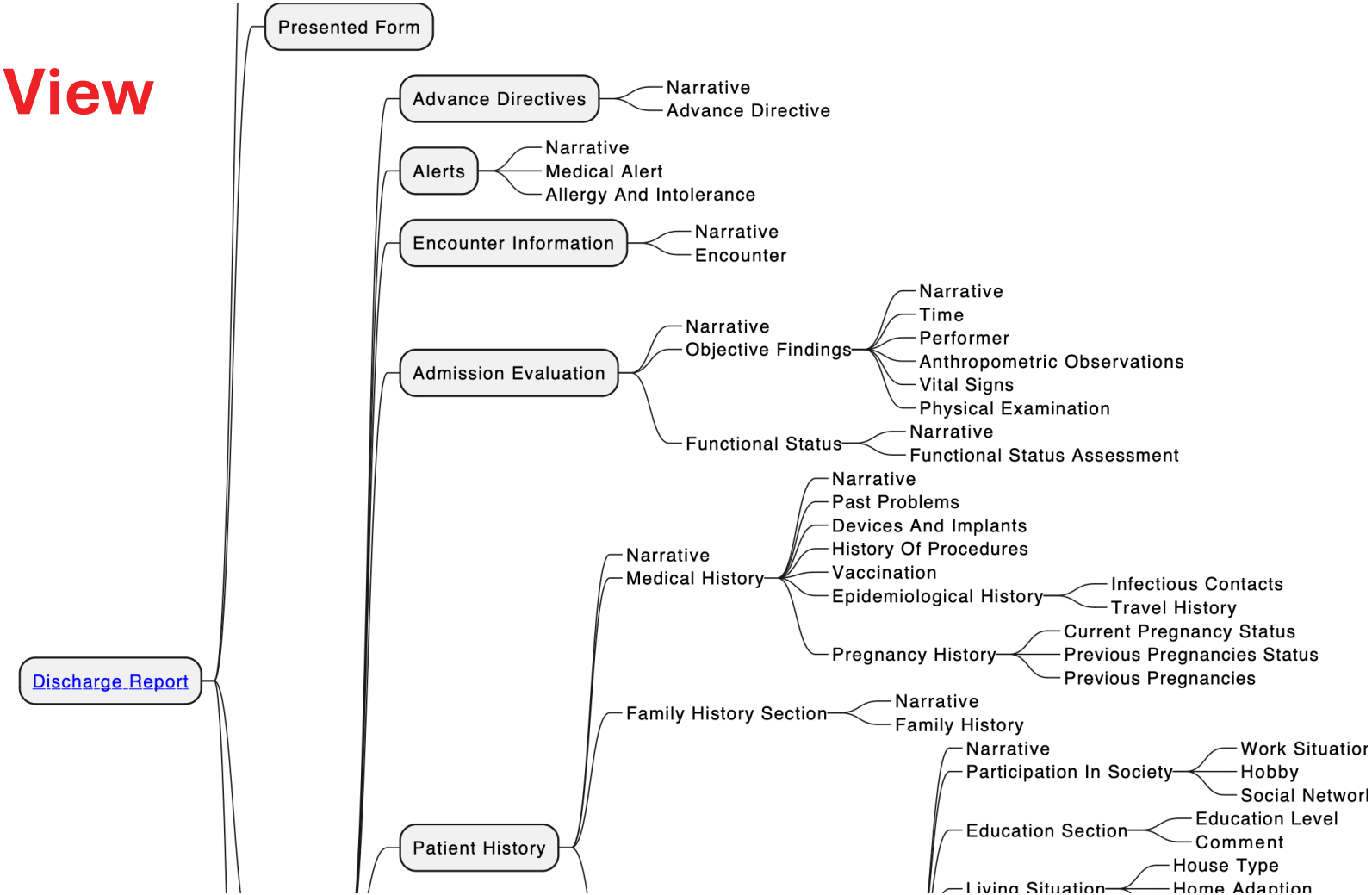
Scope (so far)

- Specify a set of rules to be applied to HL7 FHIR to define how to represent a Hospital Discharge Report in the European Context, coherently with the European eHN Guidelines (see the European eHealth - Key documents)
- Its main goal is to define the content components and a preferable structure to be used for composing an **Hospital Discharge Report**

Scope “Extension“

- Original Scope: Hospital
- Extended to: outpatient visit reports
- Xt-EHR:
  - Tree View
  - Logical Model

Tree View


Discharge Report
Presented Form
Advance Directives
Narrative
Advance Directive
Alerts
Narrative
Medical Alert
Allergy And Intolerance
Encounter Information
Narrative
Encounter
Admission Evaluation
Narrative
Objective Findings
Narrative
Time
Performer
Anthropometric Observations
Vital Signs
Physical Examination
Functional Status
Narrative
Functional Status Assessment
Patient History
Narrative
Medical History
Narrative
Past Problems
Devices And Implants
History Of Procedures
Vaccination
Epidemiological History
Infectious Contacts
Travel History
Pregnancy History
Current Pregnancy Status
Previous Pregnancies Status
Previous Pregnancies
Family History Section
Narrative
Family History
Narrative
Participation In Society
Work Situatior
Hobby
Social Networl
Education Section
Education Level
Comment
House Type

Logical Model

PDF-version of a document			
body	0..1	Base	Structured body of the discharge report document
advanceDirectives	0..1	Base	Section: Advance Directives.
narrative	0..1	string	Narrative, potentially formatted, content of the section
advanceDirective	0..*	EHDSAdvanceDirective	Provision for healthcare decisions if, in the future, a person is unable to make those decisions
alerts	0..1	Base	Section: Alerts.
narrative	0..1	string	Narrative, potentially formatted, content of the section
medicalAlert	0..*	EHDSAlert	Description of medical alerts in textual format: any clinical information that is imperative to know so that the life or health of the patient does not come under threat.
allergyAndIntolerance	0..*	EHDSAllergyIntolerance	Allergy and Intolerance. A record of allergies and intolerances (primarily to be used for new allergies or intolerances that occurred during the encounter).
encounterInformation	1..1	Base	Section: Encounter information.
narrative	1..1	string	Narrative, potentially formatted, content of the section
encounter	0..1	EHDSEncounter	Encounter information
admissionEvaluation	0..1	Base	Section: Admission evaluation
narrative	0..1	string	Narrative content of the section. This narrative shell containing either summary narrative description of all subsections, or similar narrative sub-section elements should be provided.
objectiveFindings	0..1	Base	Objective findings
narrative	0..1	string	Narrative content of the section. This narrative shell containing either summary narrative description of all subsections, or similar narrative sub-section elements should be provided.
time	0..1	dateTime	Date and time of the admission evaluation examination
performer	0..*	EHDSHealthProfessional	Health professional(s) responsible for the admission evaluation examination.
anthropometricObservations	0..*	EHDSObservation	Anthropometric observations, such as body weight and height of the patient, BMI, circumference of head, waist, hip, limbs and skin fold thickness.
vitalSigns	0..*	EHDSObservation	Vital signs observations. Mandatory: pulse rate, respiratory rate, systolic and diastolic blood pressure with site information; optional: 02 saturation
physicalExamination	0..*	EHDSObservation	Physical examination
functionalStatus	0..1	Base	Section: Functional status
narrative	0..1	string	Narrative, potentially formatted, content of the section
functionalStatusAssessment	0..*	EHDSFunctionalStatus	An individual's ability to perform normal daily activities required to meet basic needs, fulfil usual roles and maintain health and well-being
patientHistory	0..1	Base	Section: Patient health history (anamnesis).
narrative	0..1	string	Narrative content of the section. This narrative shell containing either summary narrative description of all subsections, or similar narrative subsection elements should be provided.
medicalHistory	1..1	Base	Medical history subsection.
narrative	0..1	string	Narrative content of the section. This narrative shell containing either summary narrative description of all subsections, or similar narrative subsection elements should be provided.
pastProblems	1..*	EHDSCondition	Past problems
devicesAndImplants	1..*	EHDSDeviceUse	Devices and Implants
historyOfProcedures	0..*	EHDSProcedure	History of procedures
vaccination	0..*	EHDSImmunisation	Vaccination history of the patient.

Experiences from other Affiliates/Countries…

- CDA 2 FHIR converson tools Recommendation paper
  - Common grounds for staructureal conversions
  - Terminology remains country challenge
- HDR to generic DR
  - Vital signs how to position the in repeated periods during stay

Next steps