Change request

Problem Condition

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Dataset release	2022.1	Consulted expert	-

1   Change request input / rationale

The *Problem Condition* concept includes the information regarding datetime the patient reports that the problem first occurred. However, further temporal information such as the datetime when the problem was reported or when the problem occurred during the treatment pathway are missing although this information would be available.

2   Comparison to other standards/data models

2.1   HL7 FHIR

In HL7 FHIR, there is a resource Condition (https://www.hl7.org/fhir/condition.html). The resource includes onset information and the date the problem was recorded.

A project of

SAMW ASSM
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Académie Suisse des Sciences Médicales
Accademia Svizzera delle Scienze Mediche
Swiss Academy of Medical Sciences

SIB
Swiss Institute of Bioinformatics

SIB | Swiss Institute of Bioinformatics
PHI | Personalized Health Informatics Group
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3 Change content

3.1 Currently released concept

SPHN Dataset version: 2021.1

Unique concept ID: 0000000316

Concept name	Description	Type	Standard	Value set	Meaning binding SNOMED CT	Meaning binding LOINC
Problem Condition	clinical condition, problem, diagnosis, or other event, situation, issue, or clinical concept that has risen to a level of concern				55607006 |Problem (finding)|	44100-6 Medical problem
problem	finding problem or condition expressed using free text	string				
code	code, name, coding system and version used to describe the problem, e.g. ICPC	Code	ICPC or other			
datetime	datetime the patient reports that the problem first occurred	temporal				

3.2 Proposed new concept

Contextualized concept name	Description	Type	Standard	Value set	Meaning binding SNOMED CT	Meaning binding LOINC
Problem Condition	clinical condition, problem, diagnosis, or other event, situation, issue, or clinical concept that has risen to a level of concern				55607006 |Problem (finding)|	44100-6 Medical problem
problem	finding problem or condition expressed using free text	string				
code	code, name, coding system and version used to describe the problem, e.g. ICPC	Code	ICPC or other			
onset datetime	datetime the problem first occurred	temporal				
record datetime	datetime the problem was recorded	temporal				
relative temporality	indicates when the problem was reported in relation to the treatment pathway, e.g. on admission, intraoperative, post-radiation	Code	SNOMED CT	child of : 307152002 |Temporal periods relating to procedure (qualifier value)|		

4   Pros and cons

4.1   Advantages

- The record datetime (can be a system generated datetime) can be delivered if the actual datetime the problem first occurred is not available,
- Additional information is available to the researcher revealing the information when the problem condition occurred related to other events during the treatment pathway.

4.2   Disadvantages

None.

5   Discussion

The distinction between the date the problem condition first occurred and the date the problem condition was recorded allows to be precise about the meaning of the dates that are delivered by the data providers. The PSSS project added a composedOf *problem condition type* describing whether the problem is an admitting diagnosis or principal diagnosis. This type of information can be represented in a broader sense with the new composedOf *relative temporality* indicating when the problem was reported in relation to the treatment pathway, e.g. on admission, intraoperative, post-radiation. SNOMED CT offers a concept with children concepts that can express this information in an interoperable way: child of : 307152002 |Temporal periods relating to procedure (qualifier value)|.

6   Example

A patient enters emergency ward on 12.02.2022 with Dyspnoe. The emergency physician asks when it started and documents the details. The patient reports it started around lunchtime the same day.

Problem Condition – Emergency Unit IT System does not support ICPC or any other semantic standard for the problem list

Problem:	Atemnot
Onset datetime:	12.02.2022 12:00
Record datetime:	12.02.2022 22:03
Relative temporality:	281379000 |Pre-admission (qualifier value)|

Problem Condition – Emergency Unit IT System does support ICPC-2 for the problem list

Code:	Identifier: R02
	Name: Shortness of breath/Dyspnoea
	Coding system and version: ICPC-2
Onset datetime:	12.02.2022 12:00
Record datetime:	12.02.2022 22:03
Relative temporality:	281379000 |Pre-admission (qualifier value)|