Challenges in the implementation of a standard International Patient Summary (IPS) across EU countries

Panel discussion: New Trends in Citizen-oriented Services

Panelist: Professor Evgeniy Krastev, PhD

Faculty of Mathematics and Informatics, Sofia University St. Kliment Ohridski, Bulgaria
Short description

The draft European Standards FprEN 17269 and FprCEN/TS 17288 provide a detailed description of the IPS data set and a guidance for its implementation in citizen-centric services.

This panel discussion will focus on the challenges in the implementation of the IPS in four use cases.
Main Topics

1. A short description of the IPS
2. Use cases
3. Implementation challenges
1. A short description of the IPS

One of the principles underpinning European Union policies relates to the free movement of its citizens (patients and clinicians) throughout its Member states. Patients demand the same standard of care when and wherever required. Healthcare providers and their responsibilities are subject to change, and this too requires data to be shared in a seamless way.

The difference and diversity in existing implementations in the increasingly complex healthcare ecosystem makes it currently difficult to exchange clinical data at the level of semantic interoperability. As a minimum there is a strong requirement to provide simple interoperable solutions for key applications.

The objective of the EU is to support continuity and coordination of healthcare of EU citizens across EU Member States.
1. A short description of the IPS

The IPS draft standard outlined in the FprEN 17269 standard provides a baseline information model of a Patient Summary. It represents the core, minimal and non-exhaustive data set from which custom IPS models must be derived.

### Required sections
- Patient Attributes
- Allergies and Intolerances
- Medication Summary
- Problems
- Provenance
- Cross Border

### Recommended sections
- Immunizations
- History of Procedures
- Medical Devices
- Results
- Cross Border

### Optional sections
- Vital Signs
- Advance Directives
- Functional Status
- History of Past Illness
- Plan of Care
- History of Pregnancy
- Social History
- Non-IPS Sections

Evgeniy Krustev, Sofia University St. Kliment Ohridsky
2. Use cases

The original use case covers the scope of a single, primary scenario to exchange a Patient Summary cross-border for unscheduled care of a visitor. This requirement has been the focus throughout the joint development of FprEN 17269 and FprCEN/TS 17288.

However, the needs of EU Member States went beyond the original scope and it was agreed that the IPS can be employed in secondary scenarios providing this did not compromise the original requirement.
2.1 Scenario No. 1

Primary Scenario: Cross-border exchange, unscheduled care
2.1 Scenario No. 2

Secondary Scenario: **Local, Unscheduled care**

![Diagram of IPS and HIS systems in Country A](image-url)
2.3 Scenario No. 3

Primary Scenario: Cross-border exchange, **scheduled** care
2.4 Scenario No. 4

Secondary Scenario: Local, Scheduled care
3. Implementation challenges

Implementation Approaches

Archetype paradigm

Message paradigm

3.1 Archetypes

The ISO EN13606 Reference Model represents the global characteristics of health record components, how they are aggregated, and the context information required to meet ethical, legal and provenance requirements.

Archetypes are effectively pre-coordinated combinations of named hierarchies that are agreed within a community in order to ensure semantic interoperability, data consistency and data quality. ISO EN13606 provides an Archetype Object Model and an Archetype Description Language used in the Reference Model.

The use of standard based archetypes provides an interoperable way of representing and sharing clinical data, in support of consistent (good quality) health care record-keeping and the semantic interoperability of shared Electronic Health Records.
3.2 IPS design with Archetypes

Identify ENTRY types in IPS SECTIONs and represent them as Archetypes in ISO EN 13606

Flow of events in the therapy business process
3.3 Challenges

1. There is just a small group of professionals in Medical Informatics and Computer Science that are well familiar with the EU standards in Health Informatics and the technologies for their implementation (governmental, academic and private sector level).

2. There is almost no governmental support for the implementation of these standards.

3. The documents that describe the EU standards in Health Informatics and the set of codes from terminology servers are not freely available and, in most cases, it is difficult to acquire these documents and codes.

4. There is quite a limited set of software tools in support for the implementation of the basic requirements set by these standards.

5. There are no reference model implementations of the EU standards for semantic interoperability and IPS in particular that are freely available to the community.

6. The standards are written without taking in consideration the problems in their implementation in practicable applications in healthcare.
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Thank you for your attention!

Questions?

Comments?