Global Forum 2022
The International Patient Summary

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This session is being recorded for viewing by Global Forum registrants only.

Today's team: meeting... YOU !

Our goal today

- Provide an overview about health information technology standards
- By using the «International Patient Summary» as an example
- Interactivity by using Mentimeter (entries are anonymous)
- Collecting material from YOU for the development of one or more training materials

Our vision today:
the five 'C' of digital health standards

- 1. **C**are guidelines
- 2. Specifications related to **C**ontent
- 3. **C**oding
- 4. **C**ommunication
- 5. and **C**onfidentiality

Overview IPS

International Patient Summary

- The International Patient Summary (IPS) is building the bridge between the "home" health and care environment of the patient and any other place where the patient needs to visit a clinical professional, whether within or across borders.

- The construction of the IPS involves a number of standard components and bespoke specifications to make it all work together. This includes **CEN** and **ISO**, as well as **HL7** standards.

- To enable the use of the same coded entries for patient summary sections such as allergies, problems, procedures, and immunizations, SNOMED International makes available the IPS subset of **SNOMED CT**, under a free creative commons license. In the future, similar subsets may be published by **LOINC** for diagnostic tests, by **DICOM** for medical images and by **GS1** for medical device or medicinal product identification data to be included in the patient summary. **IHE** plays an interesting role as well.
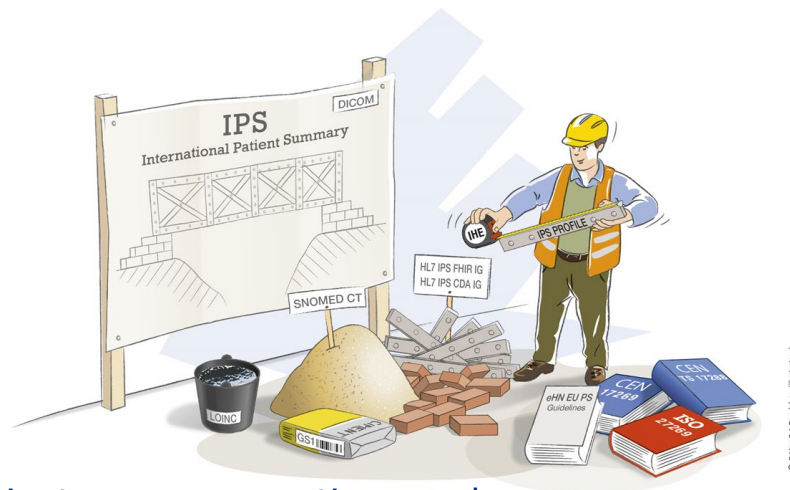
IPS in a global context

- The International Patient Summary is the latest joint activity within **JIC** and includes most of the JIC participating standard development organisations. It has a global scope -on a clinical and geographical point of view.

- It has been endorsed by several public bodies…

Recognised by **G7** at its Oxford (UK) June 2021 meeting.

Global Digital Health Partnership (**GDHP**) to advance efforts to make IPS reality.

Although without formal endorsement, WHO Digital Health and Innovation team members have participated to some IPS related works such as **FHIR** Connectathon.

# Some characteristics of the IPS (Proof of Concept Wales)

- Patient mediated dossier with health data (medical record)
  - Subject of Care see history and add personal information
  - Subject of Care decide to share medical record
  - Subject of care access measurements
  - Subject of care access supporting information from local care organisation
- Secure access
- IPS creation (by Subject of Care) and enrichment (by Subject of Care and professionals)
- IPS consumption (by professionals)
- Visit another healthcare professional / travel

IPS – Proof of concept Wales

- 12 minutes video presenting the Wales PoC: https://youtu.be/zpPlZNSvSB0
- Several countries initiate IPS implementation
- But…. Answers from the JIC webinar 9 December 2021

Does your country, state or region mandate a summary health record to be provided?

Mentimeter

Don't know
8%
No
38%
Yes
54%

Does your country, state or region mandate a summary health record to be provided?

Mentimeter

Don't know
30%
No
17%
Yes
53%
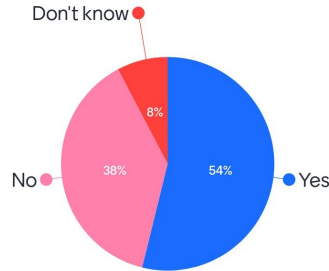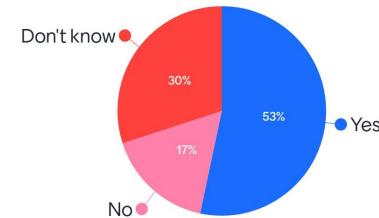
ISO – HL7

Role of CEN/ISO and HL7 regarding IPS

- CEN (European Committee for Standardisation) and ISO (International Organization for Standardisation) provide the conceptual model and its implementation guide (that includes part of the logical model)
- HL7 provides the logical and physical models

Role of CEN/ISO and HL7 regarding IPS

**EN/ISO 27269
CEN ISO TS 17288**

**Conceptual Model
(concepts and relationships)**

Represented as

**Logical Model
(data elements and relations)**

Implemented as

**Physical
(technical specification)**

What data means
Defined concepts and relationships that are used in the real world / universe of discourse
Example: "Patient Identifier: unique value that identifies a single patient or subject of care"

How data is modelled
Structures for how data is modelled, with data elements, groups, relations, cardinality, data types, etc.
Example: Patient.PatientID: 0..1: string

How data is implemented
An actual implementation in a physical system, e.g. a database or a field in a file
Examples: "Patient_ID: VARCHAR(25)"

CEN: European Committee for Standardisation; ISO : International Organisation for Standardisation

ISO 27269 defines the identifiable core IPS dataset "essential and understandable"

IPS Datablocks

Patient attributes	Allergies & intolerances	Problems (incl. diagnosis)	Medication summary	Immunization (incl. Vaccinations)	Results	Vital signs
Healthcare provider	History of procedures	History of past illness/ problems	History of pregnancy	Medical devices (incl. implants)	Functional status	Social history (incl. life style factors)
Address-book	Advance directives	Care plan	Child-health	Family history (incl. Genetics)	Recent encounters	Computable guidelines (incl. Orthacodes)
Provenance	Alerts (incl. Risks)	Patient story (incl. Author)				
Cross-border (conditional)	...					

Legend:
- 🟧 IPS required
- ⬜ Richer IPS
- 🟨 Candidate IPS

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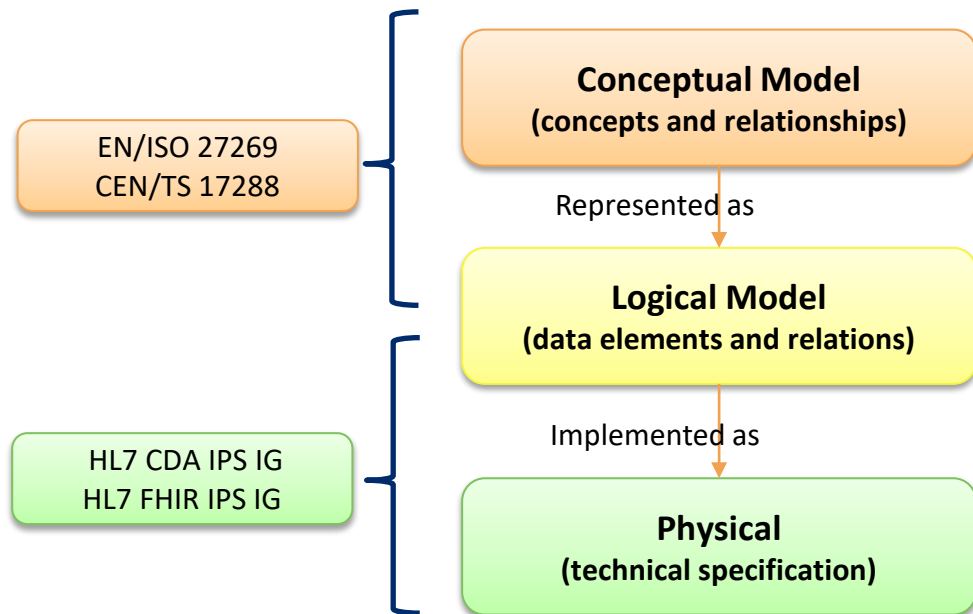
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Cross-border (conditional)	. . .					

IPS required

Richer IPS

Candidate IPS

Role of CEN/ISO and HL7 regarding IPS

EN/ISO 27269
CEN/TS 17288

Conceptual Model
(concepts and relationships)

Represented as

Logical Model
(data elements and relations)

Implemented as

HL7 CDA IPS IG
HL7 FHIR IPS IG

Physical
(technical specification)

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HL7 CDA IPS IG - HL7 FHIR IPS IG

- **FHIR** is the most recent primary standard developed by Health Level 7 (HL7) and based on internet standards for data exchange used by many industries. FHIR breaks down information into *packets*, called **resources** within the standard, which can be communicated through application programming interfaces, often in the form of requests and responses.

- The HL7 Version 3 Clinical Document Architecture (**CDA**) is a document markup standard that specifies the structure and semantics of "clinical documents" for the purpose of exchange between healthcare providers and patients

- A CDA can contain any type of clinical content such as Discharge Summary, Imaging Report, Referral, Prescription. The most popular use is for inter-enterprise information exchange
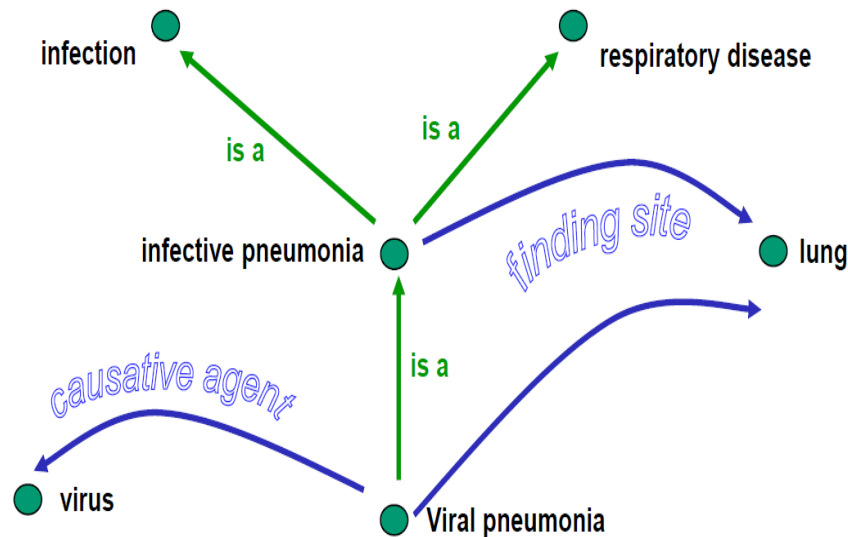
SNOMED CT

SNOMED CT

- A controlled coded clinical terminology for use in Electronic Health Records

- SNOMED International are committed to maintaining and growing SNOMED CT, ensuring it is accepted and used as the global common language for clinical terms

- SNOMED CT provides a solution for making electronic health records *meaningful*

IPS sub-ontology

- In 2019 SNOMED International and HL7 International announced formalisation of a 'Free for Use' set of SNOMED CT coded concepts within IPS

- The IPS Freeset is a richer dataset than the current Global Patient Set (GPS)

- The GPS supports transfer of information across borders into countries not licensed to use SNOMED CT. Containing code, description and status flag

  312342009   Infective pneumonia
  75570004   Viral pneumonia

- The IPS Freeset however is a sub ontology and therefore also provides properties and relationships

- SNOMED International have committed to delivery of the IPS Freeset in 2022
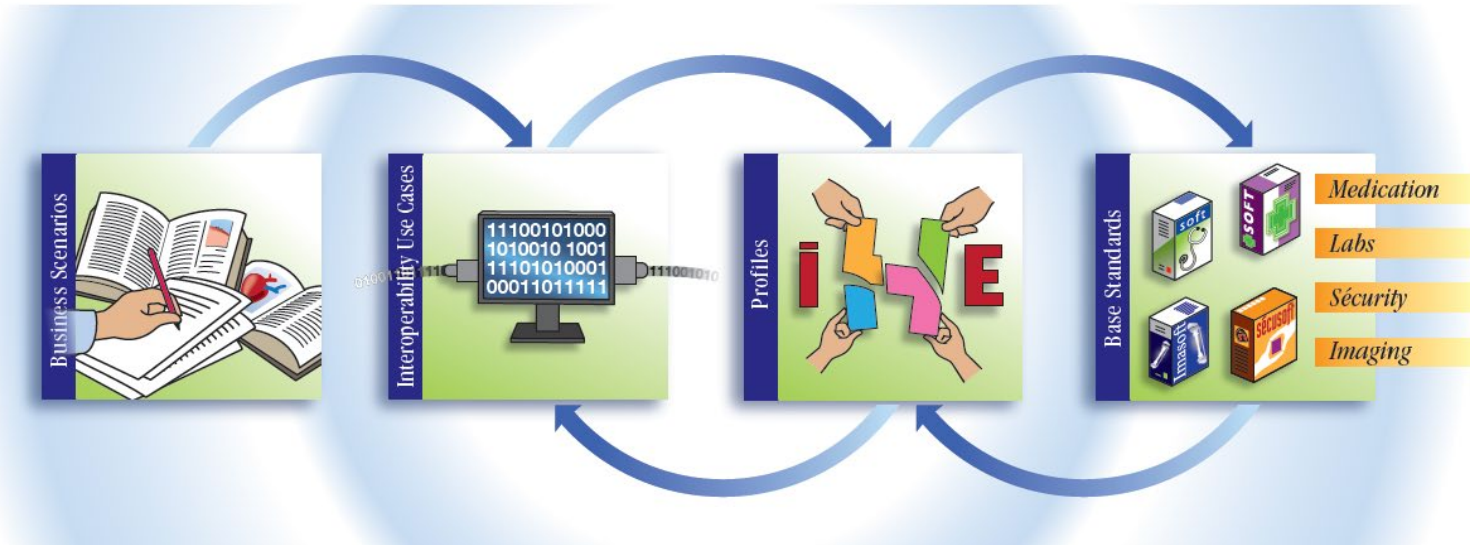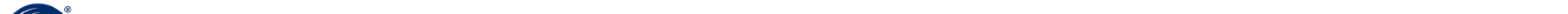
IHE

Integrating the Healthcare Enterprise (IHE)
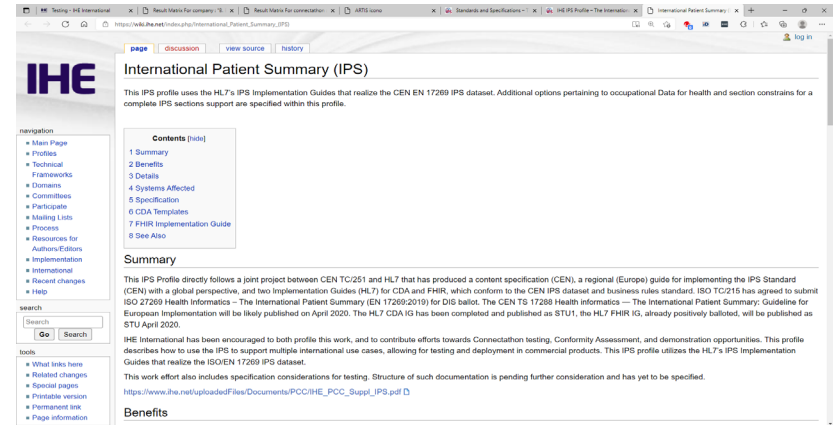
IHE is an initiative by healthcare professionals and industry to improve the way computer systems in healthcare share information.

IHE process

- Stakeholders define their needs in a **White Paper**
- Stakeholders define **Interoperability Use Cases**
- Break down in **Technical Use Cases**
- Use of **existing standards**
- Description of **IHE Profiles**
- Interoperability Specifications for Use Case
- Interoperability Testing (IHE Connectathon)
    - Testing results published to be used in call for tenders

IHE IPS Profile

- IHE IPS profile developed to support testing between *content creator* and *content consumer*

- Underlilying standards:
    - HL7 CDA® R2 Implementation Guide International Patient Summary STU Release 1
    - EN/ISO 27269 Health informatics — The international patient summary
    - SNOMED International
    - Unified Codes for Units of Measures, Regenstrief Institute, Inc. and the UCUM Organization
    - Anatomical Therapeutic Chemical (ATC) classification system World Health Organization (WHO) Collaborating Centre for Drug Statistics Methodology
    - European Directorate for the Quality of Medicines (EDQM)
    - International Standard Classification of Occupations

Wrap-up

Importance of SDO collaboration

THANK YOU FOR YOUR PARTICIPATION!

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