

Global Advancements in the International Patient Summary (IPS)

Session 187, April 20, 2023

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Meet Our Speakers



Matthew Rahn

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Conflict of Interest Slide

John D'Amore, MS and Matthew Rahn

Have no real or apparent conflicts of interest to report.



Agenda

- What is the International Patient Summary (IPS)?
- Cross-SDO Collaboration and the Global Digital Health Partnership (GDHP)
- IPS Use Cases
- Structured Data and SNOMED IPS Terminology in IPS
- Global Reference Demonstrations and Implementations
- Tying the Pieces Together and What's Next for IPS



Learning Objectives

- Describe the role of the International Patient Summary (IPS) in cross-border sharing of medical information and the key domains where it summarizes medical information
- Present how leading global health and standards development organizations are advancing IPS adoption and implementation
- Demonstrate open-source tools that have been developed for developing and using the IPS
- Discuss the role of vocabularies and terminologies in the exchange of health information across organizations, nations and different languages
- Distinguish the role of a patient summary (i.e. the IPS) from other emerging methods and standards for accessing clinical data



What is the International Patient Summary (IPS)?

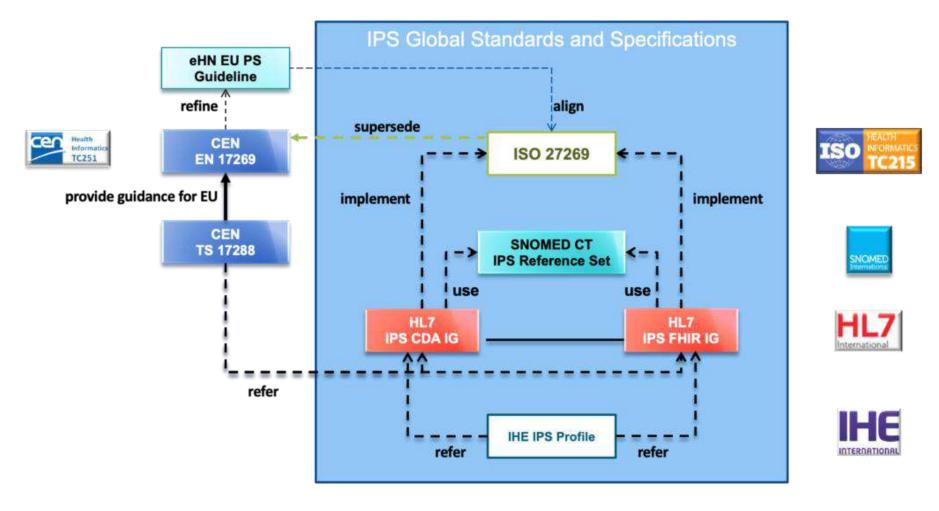
- A standardized set of basic clinical data
- Includes most important health and care related facts
- A summarized version of a patient's clinical data provides health professionals the essential information needed for care

The International Patient Summary is a minimal and non-exhaustive set of basic clinical data of a patient, specialty-agnostic, condition-independent, but readily usable by all clinicians for the unscheduled (crossborder) patient care.





Cross-Standards Development Organization (SDO) Efforts





What is Global Digital Health Partnership (GDHP)?

- Formed to support the effective implementation of digital health, exchange global best practices, and advance mutually beneficial projects. The GDHP provides opportunities for worldwide participants to exchange best practices for data sharing, electronic health records, ePrescribing, patient access, etc.
- 5 Workstreams related to work. One is interoperability which has a focus on the International Patient Summary. More info at link below

https://gdhp.health



Global Digital Health Partnership (GDHP)

33 governments + WHO, OECD and I-DAIR











































































GDHP Support for the IPS

- Goals of advancing IPS piloting & adoption
- Consider how IPS relates to policy and explore how information transfer can happen "cross-border"
- Provide venue for nations to learn, connect and discuss about activities related to IPS FHIR development
- Support open-source development
- Host mini-connectathons (4 hour virtual events):
 May 2021, June 2021, October 2021, January 2022, June 2022 and November 2022



GDHP & G7

- In 2021, the G7 moved to make support of the IPS a policy priority with a detailed roadmap released at end of year: https://www.gov.uk/government/publications/g7-health-track-digital-health-final-reports
- The United Kingdom provided a prototype demonstration of how the IPS may be implemented in December 2021: https://vimeo.com/653713828
- G7 plans to support (not compete with) GDHP



GDHP Interoperability Workstream: IPS Milestones

- 10+ Connectathons (GDHP, HL7 and other) involving IPS
- 5+ IPS presentations at national & global conferences







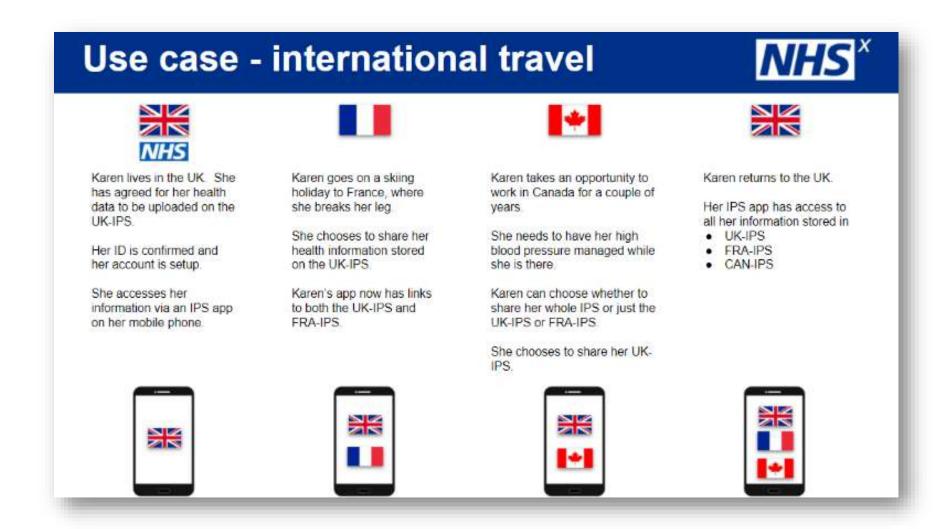




- Advancement of IPS examples and vendor engagement
- Progress to align IPS and International Patient Access (IPA)

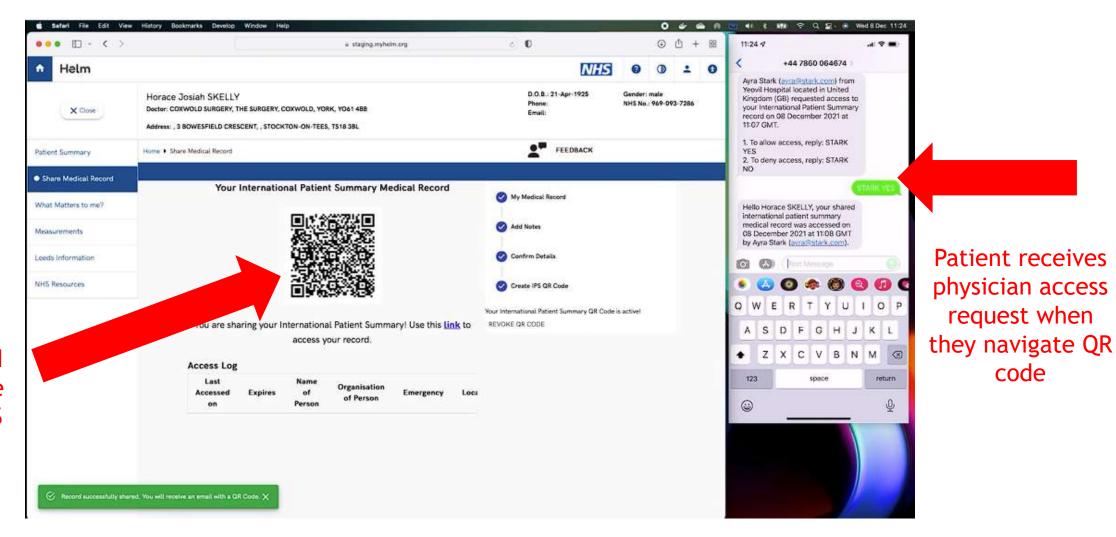


Example IPS Use Case





Patient Mediated Exchange Use Case



Patient requests and gets QR code to link to IPS

code

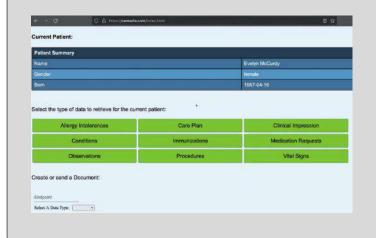
IPS Around the World



Canada

National adaptation of IPS to regional information exchange Project-a-thon with exchange

testing, content creation and vendor demo (March 2022)



Netherlands

Significant work to advance IPS adoption domestically through secure exchange MedMij

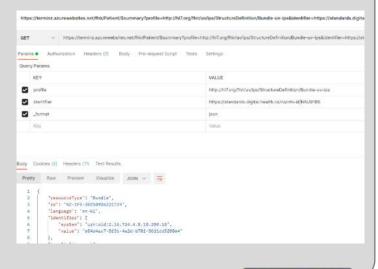


Host of 2022 GDHP Summit

Multiple commercial vendors participating in connectathons and IPS development

IPS involvement in multiple Trans-Tasman Connectathons

Public server for IPS testing: https://terminz.azurewebsites.net/fhir







IPS FHIR Guide

A care summary using the Composition Resource

- Published: https://hl7.org/fhir/uv/ips/ (STU 1.1)
- Current: http://build.fhir.org/ig/HL7/fhir-ips/

Required sections

- Allergies
- Medications
- Problems
- + 11 other sections profiles





IPS Composition

The IPS is a Bundle which uses the Composition resource to organize the patient's summary. It's both machine readable and human render-able

Bundle

Composition (1)

Practitioner (*)

Condition (*)

Immunization (*)

Observation (*)

Other Resources (*)

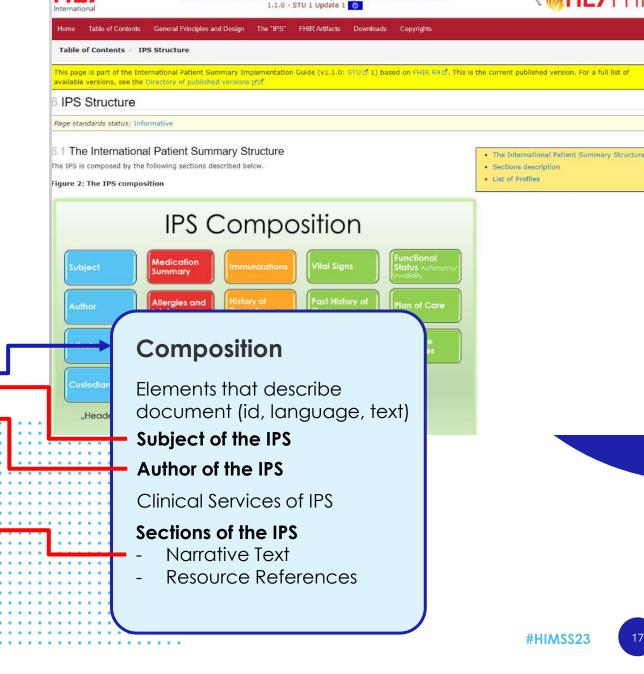
Organization (*)

AllergyIntolerance (*)

MedicationRequest(*)

MedicationStatement(*

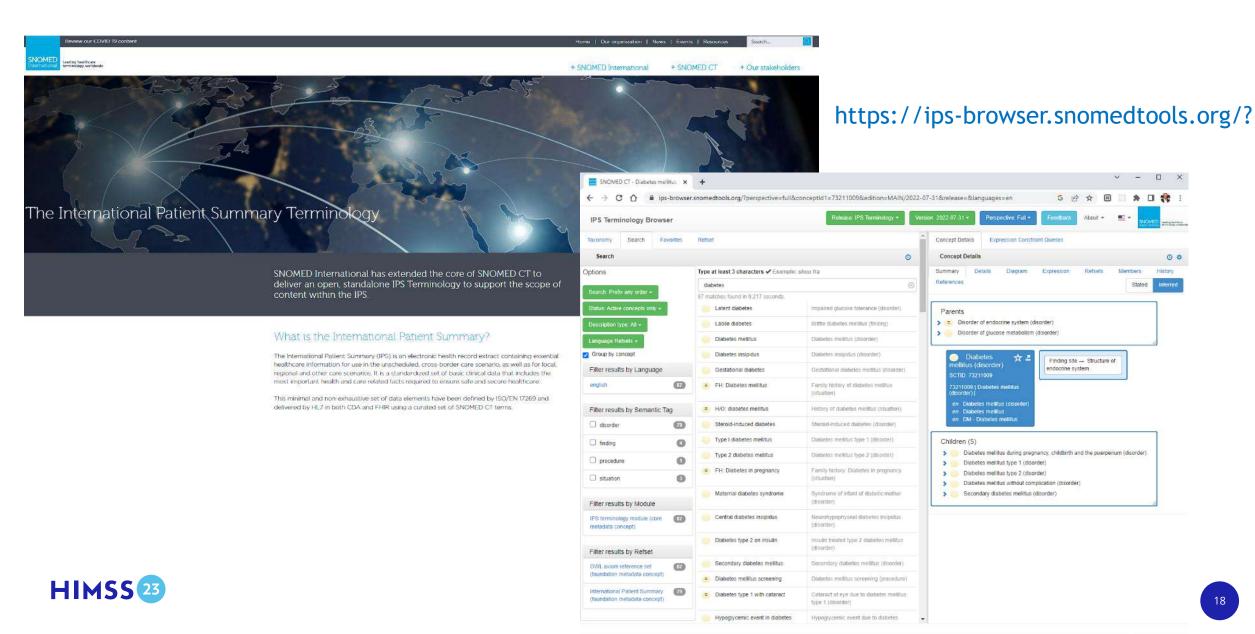
Patient (1)



International Patient Summary Implementation Guide

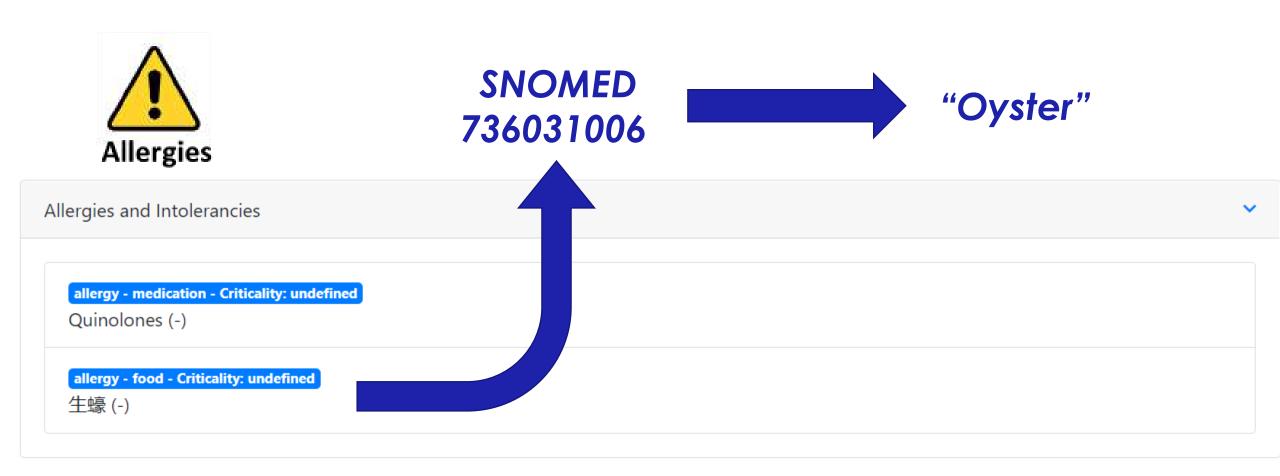


SNOMED IPS Terminology (November 2022)



A Global Need for Terminology

Structured, coded data are more usable, translatable and easy to integrate





HL7 FHIR Profile: Procedure

This profile represents the constraints applied to the Procedure resource by the IPS project, which specifies an entry of the History of Procedure for the international patient summary based on the FHIR standard R4.

The <u>Procedures-IPS value set</u> is defined using a logical definition, consisting of the following inclusion and exclusion clauses:

- Include codes from http://snomed.info/sct where concept descends from 71388002 (Procedure)
- Exclude codes from http://snomed.info/sct where concept is-a 14734007 (Administrative procedure)
- Exclude codes from http://snomed.info/sct where concept is-a 59524001 (Blood bank procedure)
- Exclude codes from http://snomed.info/sct where concept is-a 389067005 (Community health procedure (procedure))
- Exclude codes from http://snomed.info/sct where concept is-a 442006003 (Determination of information related to transfusion)
- Exclude codes from http://snomed.info/sct where concept is-a 225288009 (Environmental care procedure)
- Exclude codes from http://snomed.info/sct where concept is-a 308335008 (Patient encounter procedure)
- Exclude codes from http://snomed.info/sct where concept is-a 710135002 (Promotion (procedure))
- Exclude codes from http://snomed.info/sct where concept is-a 389084004 (Staff related procedure (procedure))

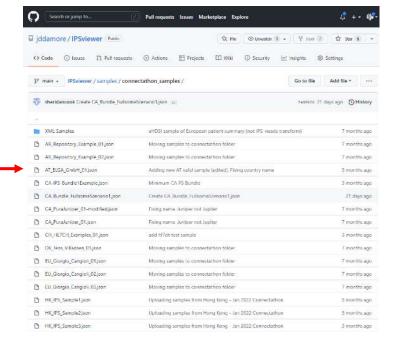


Select Tools & Examples

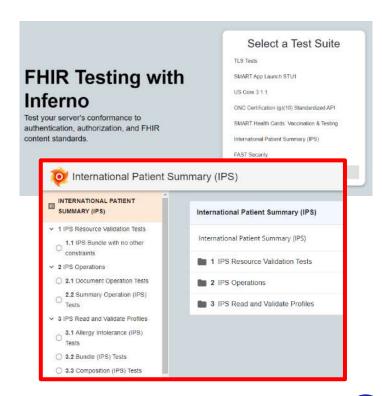
http://www.ipsviewer.com

International Patient Summary (IPS) Viewer for Connectathon Links to published Implementation Guide, the latest CI build and Connectathon-2 branch Submit Data This is for test data only. Please do not submit PHI. Paste your IPS here: Try a sample Repository of IPS Samples View IPS Displaying Entries *

https://github.com/jddamore/ IPSviewer/tree/main/samples



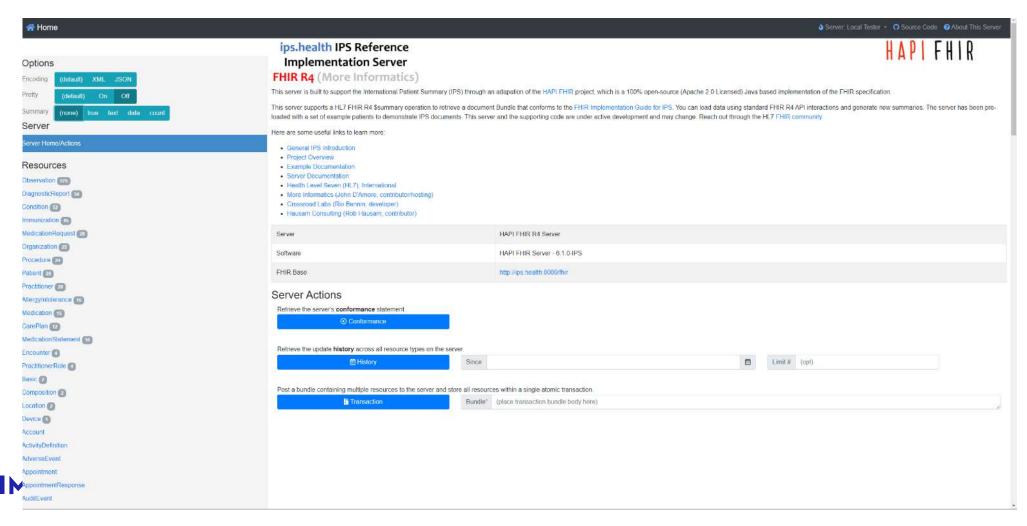
https://inferno.healthit.gov/ suites/



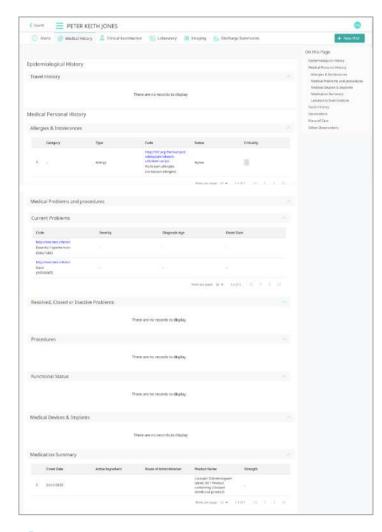


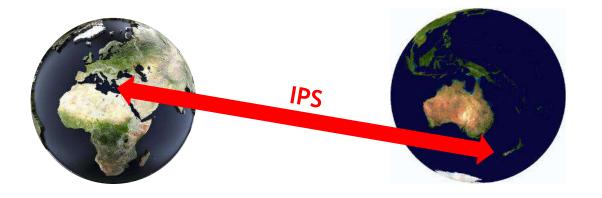
Open-Source Reference Server

https://ips.health



Demonstrations Across Globe





Cyprus demonstrates ability to import IPS from New Zealand (map above, screenshot on left)

Open-source (HAPI) for IPS generation: https://ips.health

Canada has commitments on patient summary exchange

Netherlands and other European nations working in EU framework



IPS vs. International Patient Access (IPA)

Standards Based Data

(IPA & IPS) **IPS** System of Record Multiple modalities for exchange Content **IPS** Cross-Border¹ **Profiles** Document Human readable + structured terminology³ Conforms to IPA² Clinician **Patient** 000 **IPA** Content Focus on structured data Search & Query **Patient** Consumer but content/terminology Universal¹ **Profiles** vary by geography Device (FHIR-based APIs) and use case Medical Clinician **Apps**

Data Exchange



Users

IPS Accomplishments (2021-2022)



2021:

Connectathons – IPS Tracks

- ✓ Jan 2021 HL7 FHIR Connectathon
- ✓ Mar 2021: IHE NA Connectathon
- ✓ May 2021: HL7 FHIR Connectathon
- ✓ May 2021: GDHP FHIR Connectathon
- ✓ Jun 2021: GDHP FHIR Connectathon
- ✓ **Sep 2021:** HL7 FHIR Connectathon
- ✓ Oct 2021: GDHP FHIR Connectathon

Present on the IPS

- ✓ **Apr 2021:** GDHP Summit
- ✓ Aug 2021: HIMSS Conference
- ✓ **Nov 2021**: SNOMED International

• <u>Demos & Articles</u>

- ✓ HL7 Blog
- ✓ IPS Viewer Hosted (www.ipsviewer.com)
- ✓ UK IPS Prototype Development

2022:

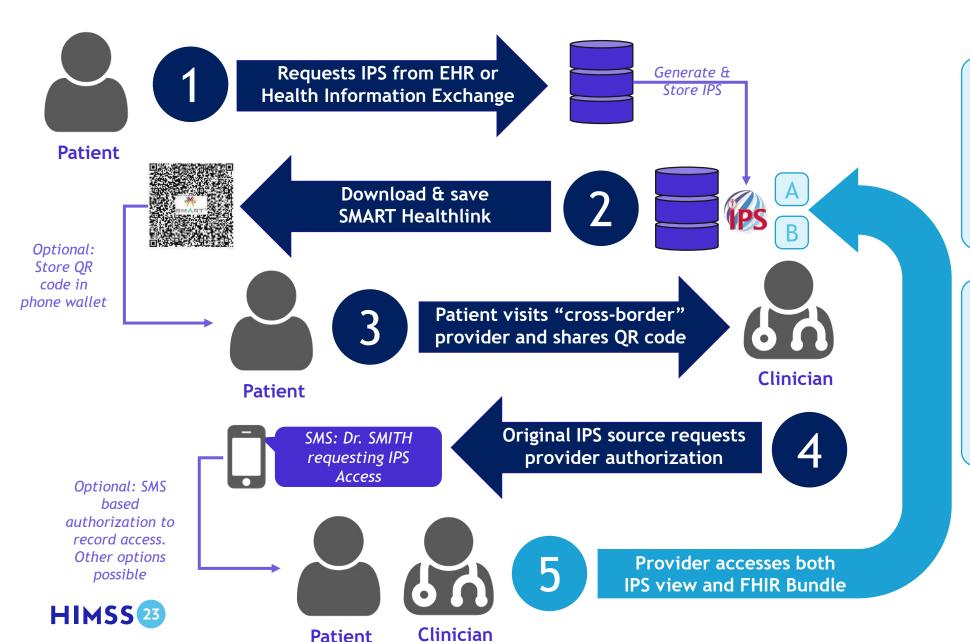
Connectathons – IPS Tracks

- ✓ Jan 2022: GDHP FHIR Connectathon
- ✓ Mar 2022: Canadian Projectathon (IPS-related)
- ✓ Apr 2022: Trans-Tasman Event (IPS-related)
- ✓ May 2022: HL7 FHIR Connectathon
- ✓ May 2022: LACPass Connectathon (IPS-related)
- ✓ June 2022: GDHP FHIR Connectathon
- ✓ **Sep 2022:** IHE & HL7 IPS Tracks
- ✓ Nov 2022: GDHP FHIR Connectathon

Present on the IPS

- Mar 2022 HIMSS Presentation
- ✓ Jun 2022 HL7 FHIR DevDays
- ✓ September 2022: SNOMED International

IPS & SMART Health Links



A. Readable View (HTML)

B. Computable Data (FHIR)

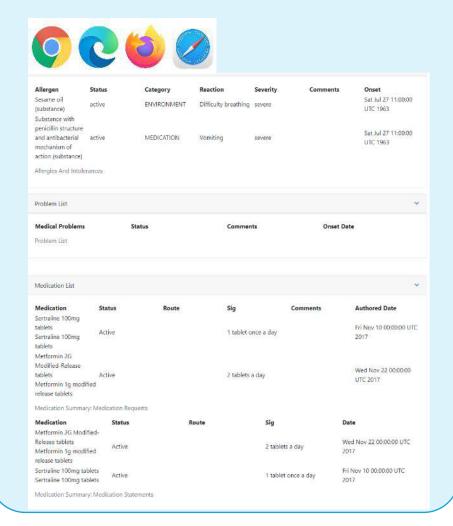


Initial Prototype: https://shlink.ips.health

IPS & SMART Health Links



Readable View (HTML)



B

Computable Data (FHIR)



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Questions?





Learn more about IPS at:

https://international-patient-summary.net/

Thank You!

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