Norwegian Medical
Products Agency

HL7 Norge Hackathon – Breakout session

Medication Definition - track

HL7 Norway Hackathon Meeting, Oslo, Norway, 9 November 2026

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The agenda

The FHIR Medication Definition module through two separate ISO IDMP MD APIs:

- The FHIR R4 NOMA national implementation of Medicinal Product Dictionary
- The FHIR R5 EMA PMS API

Introductions

- Where do you work?
- What do you work on?
- Previous experience with medication data (in any format)?
- Previous experience with FHIR?
- What brings you to a FHIR hackathon?
- Of all tracks, why Medication Definition?



Medication Definition in FHIR

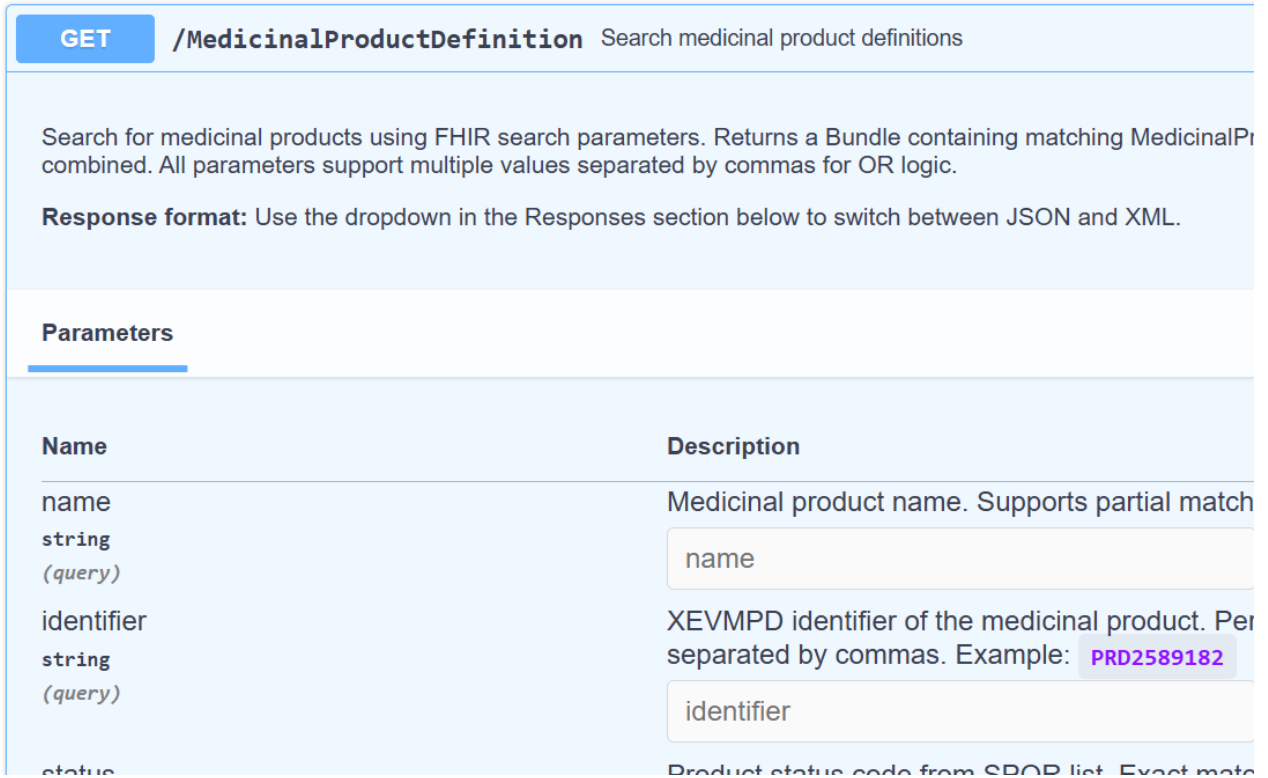
- A separate module for medication master data
- Distinct from the Medication module
- Draft resources in R4
- The main reason behind R4B
  (anyone remember R4B?)
- Refined and matured in R5
- Mostly unchanged in R6, mostly

Medication Definition

- MedicinalProductDefinition 3
- PackagedProductDefinition 2
- AdministrableProductDefinition 2
- ManufacturedItemDefinition 2
- Ingredient 2
- ClinicalUseDefinition 2
- RegulatedAuthorization 2
- SubstanceDefinition 1
- SubstanceNucleicAcid 0
- SubstancePolymer 0
- SubstanceProtein 0
- SubstanceReferenceInformation 0
- SubstanceSourceMaterial 0

The EMA Product Management Service (PMS) API

- Closed API with authentication and access control for the interaction between EMA, industry, and national authorities
- Public API in public beta freely available to anyone, both organizations and private individuals
- Free and fully selv-service registration
- Documentation in OpenAPI and PDF document (no FHIR profiles yet)



Resources and related projects

- Documentation: the EU IDMP Implementation Guide
  https://www.ema.europa.eu/en/human-regulatory-overview/research-development/data-medicines-iso-idmp-standards-overview/substance-product-organisation-referential-spor-master-data/substance-product-data-management-services#eu-idmp-implementation-guide-12045
- Chapter 2: Data elements for the electronic submission of information on medicinal products for human use
  https://www.ema.europa.eu/en/documents/regulatory-procedural-guideline/product-management-services-pms-implementation-international-organization-standardization-iso-standards-identification-medicinal-products-idmp-europe-chapter-2_en.pdf
- RMS terminology, browsing and download
  https://spor.ema.europa.eu/rmswi/#/

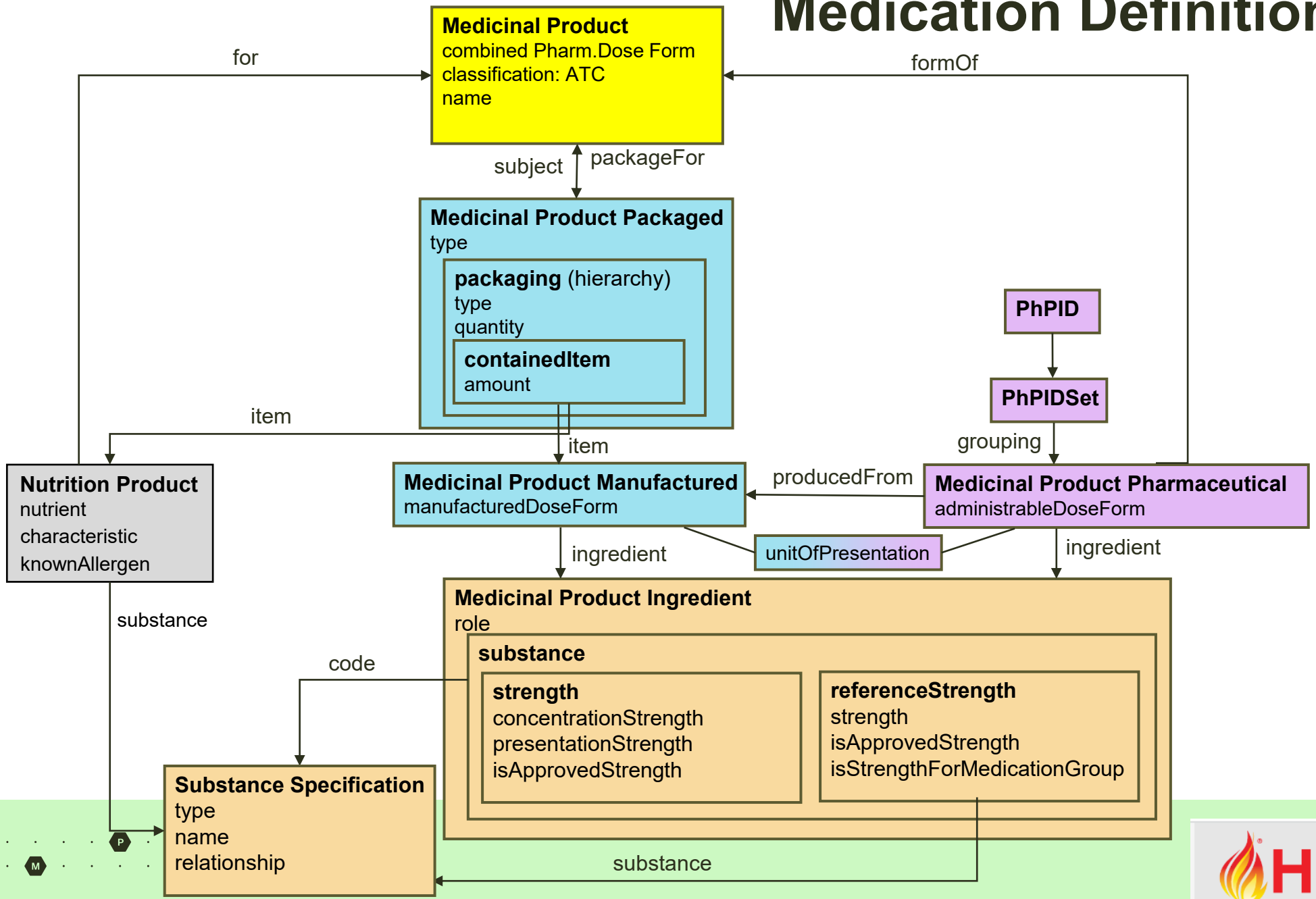
The NOMA FHIR API:
What we will provide to get you started

We can offer subject matter experts on the NOMA FHIR APIs.
What do you want to explore, learn and what are your goals for the hackathon?

- Access to the NOMA Medication Definition FHIR Service
  - A subscription key to make requests with
- Implementation guide
  - A link to the (work in progress) implementation guide in Simplifier, containing the information model, FHIR profiles, examples, etc
- Postman collection
  - A collection of simple requests that can be used to retrieve data from the API
  - *Please install Postman in advance if you want to use this*
- Examples of products to explore, with different contents/structure
- Is there anything else you would like in order to get started?

NOMA FHIR version 3.1

Medication Definition



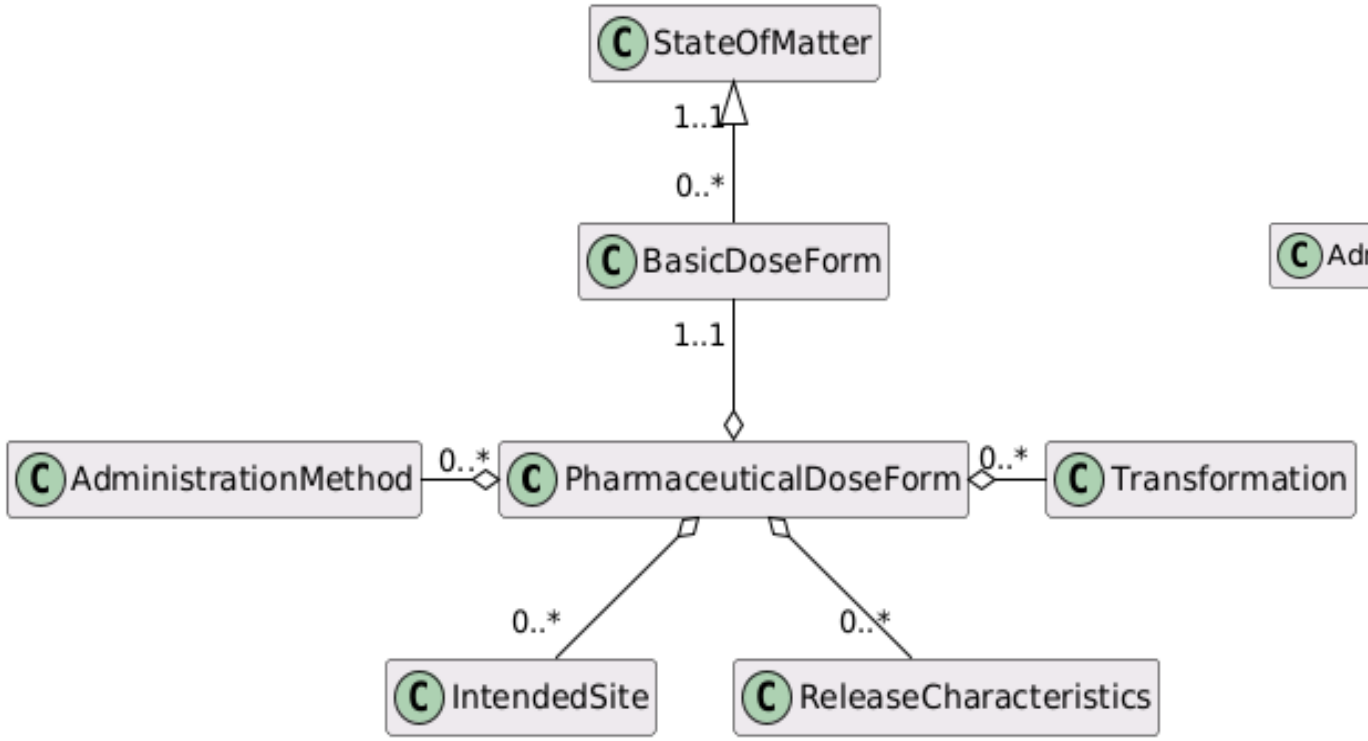
IDMP (FHIR R 4.0.1)

Code Systems

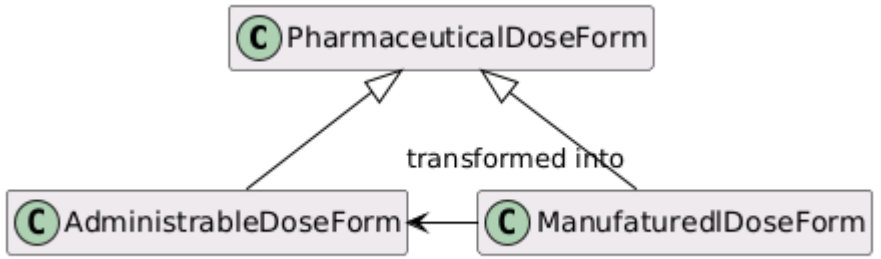
NOMA FHIR version 3.1

IDMP (FHIR R 4.0.1)

Example : Pharmaceutical Dose Form



Manufactured vs Administrable



The objective: To allow participants become familiar with the Medication Definition FHIR services and their content

The purpose of Medication FHIR Service is to enable safe and unambiguous identification of medicinal products in clinical use cases nationally and across the EU/EEA

Objective of the Hackathon :

Introduce the Medication FHIR Service from NOMA and its specification in Simplifier. Explore and become familiar with the service and the FHIR resources

Introduce the Medication FHIR Service from EMA and its the specification in Simplifier. Explore and become familiar with the service

Data to explore in the NoMA Service

- Code Systems
  - Retrieve all Code Systems
  - Review the Code System for Pharmaceutical Dose Form
  - Review the Simplifier Documentation for the Dose Form Code Systems
  - Review all Pharmaceutical Dose Form Properties with their Code Systems
    - Basic Dose Form
    - Intended Site
    - Administration Method
    - Release Characteristics
    - Transformation
  - Determine the Dose Form relationship to an administrable dose form
    - Determine if the Concept Dose Form has a relationship to its administrable dose form counterpart

Data to explore in the NoMA Service

- Medicinal Product Packaged
  - Find a package based on a specified identifier: varenummer or packageId from FEST
  - Find various different packaging types – kombination packages, multistrength packages, set packages
  - Find a package based on its product GTIN barcode
- Medicinal Product
  - From the package, find its corresponding Medicinal Product
  - Search for a Medicinal Product based on its ID
- Medicinal Product Manufactured
  - Find the Manufactured Item from the Medicinal Product Package

Data to explore in the NoMA Service

- Medicinal Product Ingredient
  - From the Manufactured Item, find the Ingredients
  - Identify which SubstanceDefinitions and related strengths that are defined for the item
  - Review the strength and related reference strengths for each ingredient
- Substance Specification
  - Find the Substance Specification from each ingredient
  - Reveiw the Substance attributes for each substance related to the medication

Data to explore in the NoMA Service

- Medicinal Product Packaged
  - Find a package based on a specified nordic article number (varenummer)
  - Find various different packaging types
  - Find a package based on its product GTIN barcode
- Nutrition Product (Basic)
  - From the package, find its corresponding Nutrition Product (Basic)
  - Search for a Nutrition Product based on its ID
  - Explore the contents/structure
    - Nutrients, ingredients, known allergens, characteristics, route of administration, etc

Did you find what you were looking for?

- Did you find the resources you were looking for?
- Did you understand the data structures and its content?
- Did you have specific trouble finding something?
- Any experience you want to share?
- Suggestions on improvements?

Data to be explored