Medicationknowledge Fhir Resource Proposal
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MedicationKnowledge

Owning work group name

Pharmacy Work Group

Committee Approval Date:

March 11, 2019 - see minutes on Confluence Pharmacy Minutes 11-03-2019

Contributing or Reviewing Work Groups

- BR&R
- O&O
- Patient Care
- CDS

FHIR Resource Development Project Insight ID

- Project Insight ID: 1409

Scope of coverage

- Identification and characteristics of a product consumed by patients
- The scope of a MedicationKnowledge resource encompasses all the products that are conventionally understood to be medications or products consumed by patients including non-prescribed medication, herbal products, diet supplements, illicit drugs, and even some products that may be classified as devices. This resource is intended to include attributes that describe the medication including, but not limited to type, colour, image, cost, formulary coverage, etc.
- This resource may be a kind of product as well as a specific instance of a product.
- The following diagram describes the scope of the various resources related to medication content. The Pharmacy Work Group has worked with Biomedical Research and Regulation (BR&R) Work Group to develop the diagram to describe the relationship between the various resources.
- These include:
  - Medication
  - MedicationKnowledge
  - MedicinalProduct (expect to be renamed)
  - MedicinalProductPackaged (expect to be renamed)
  - MedicinalProductPharmaceutical (expect to be renamed)

- Common Medication Model
The scope and boundary for each resource will be updated to clearly describe to implementers where the resources apply.

- The MedicationKnowledge resource:
  - is related to Medication, but contains additional attributes to fully describe a medication for different contexts - clinical decision support, payment/coverage, drug information.
  - contains a subset of the attributes in MedicinalProduct
  - contains additional attributes that are not in scope for MedicinalProduct
  - Will be used in multiple environment including community pharmacies, hospital pharmacies, hospitals, prescriber offices, etc

**RIM scope**

- MedicationKnowledge corresponds to a manufactured product (MANU) role played by a manufactured material MMAT entity. The Common Product Model in the V3 ballot encompasses this scope but also provides much more.

**Resource appropriateness**

- Products cannot be used if they cannot be identified and systems to establish and maintain queryable lists of products are widespread. For systems to interoperate they must have a shared basis for product identification as well as the characteristics of a medication. Characteristics can include attributes such as colour, markings, an image, as well as cost and formulary coverage. It may also be as broad as the clinical knowledge about a medication such as drug-drug interactions, dosing recommendations, and drug-allergy interactions.

**Expected implementations**

- This resource is likely to be implemented by applications:
  - Pharmacy Practice Management Systems
  - Electronic Medical Records
  - Clinical Decision Support systems
  - Hospital Information Systems/EHRs
  - Drug Knowledge Bases
Content sources

- Existing normative V3 CPM RMIMs
- Existing specifications in Canada, The Netherlands and UK
- Some commercial systems

Example Scenarios

- A prescriber or dispenser wants to query to get information about the coverage and cost of a particular drug. This resource can be used to query for a drug or set of drugs coverage details in a particular formulary
- A prescriber or dispenser wants to query to get potential equivalent products – for example, they can search using the ingredient(s) and strength to return branded products that contain the same set of ingredient(s) and strength(s)
- A patient wants to query to determine if a drug is covered by an insurer and its' cost
- A patient wants to query to get information (side effects, etc) about a drug he or she is taking or has been prescribed.

Resource Relationships

- MedicationKnowledge is expected to reference Substance, Organization, Medication, DocumentReference, Media.
- It will also reference draft resources: Contraindication, Indication, Interaction, UndesirableEffect - currently under development by BR&R but will be working with other WorkGroups (CDS, Patient Care) to fully define
- This resource may be referenced by other resources such as CatalogEntry in the future

Timelines

- Expect to be ready for Comment only ballot – September 2019 Ballot Cycle
- Maturity level 1 (or higher) in R5
gForge Users

- Melva Peters

When Resource Proposal Is Complete

When you have completed your proposal, please send an email to FMGcontact@HL7.org

FMG Notes