

Health & Care Information Model: nl.zorg.part.PharmaceuticalProduct- v2.2.1

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1. nl.zorg.part.PharmaceuticalProduct-v2.2.1

DCM::CoderList	Projectgroep Medicatieproces
DCM::ContactInformation.Address	
DCM::ContactInformation.Name	*
DCM::ContactInformation.Telecom	
DCM::ContentAuthorList	Projectgroep Medicatieproces
DCM::CreationDate	1-3-2017
DCM::DeprecatedDate	
DCM::DescriptionLanguage	nl
DCM::EndorsingAuthority.Address	
DCM::EndorsingAuthority.Name	PM
DCM::EndorsingAuthority.Telecom	
DCM::Id	2.16.840.1.113883.2.4.3.11.60.40.3.9.7
DCM::KeywordList	FarmaceutischProduct
DCM::LifecycleStatus	Final
DCM::ModelerList	Architectuurgroep Registratie aan de Bron
DCM::Name	nl.zorg.part.FarmaceutischProduct
DCM::PublicationDate	15-10-2023
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DCM::ReviewerList	Projectgroep Medicatieproces & Architectuurgroep Registratie aan de Bron
DCM::RevisionDate	13-09-2023
DCM::Supersedes	nl.zorg.part.FarmaceutischProduct-v2.2
DCM::Version	2.2.1
HCIM::PublicationLanguage	EN

1.1 Revision History

Publicatieversie 1.0 (04-09-2017)

Publicatieversie 2.0 (31-12-2017)

Bevat: ZIB-472, ZIB-618.

Publicatieversie 2.1 (06-07-2019)

Bevat: ZIB-781, ZIB-788, ZIB- 792, ZIB-795, ZIB-796, ZIB-797.

Publicatieversie 2.1.1 (31-01-2020)

Bevat: ZIB-789.

Publicatieversie 2.1.2 (01-09-2020)

Bevat: ZIB-911.

Publicatieversie 2.1.3 (01-12-2021)

Bevat: ZIB-1452.

Publicatieversie 2.2 (10-06-2022)

Bevat: ZIB-1453, ZIB-1651, ZIB-1726.

Publicatieversie 2.2.1 (15-10-2023)

Bevat: ZIB-1743.

1.2 Concept

The prescribed substance is usually medication. However, medical aids and bandages can also be prescribed and supplied via the pharmacy. Food and blood products do not strictly belong in the medication category, but can be prescribed and supplied by a pharmacy as well.

A type of medication can be indicated with a **single code**. That code can be chosen from several possible coding systems (concretely: GPK, PRK, HPK or article numbers). Correct use of these codes in the software systems will sufficiently record the composition of the product used, making a complete product specification unnecessary.

In addition to a primary code, **alternative codes** from other coding systems can also be entered (so that the GPK can be sent along in the event that the patient was registered based on PRK, for example).

Entering multiple ingredients will enable you to display a compound product. If one of the composite parts is liquid, the dosage will be given in milliliters; otherwise it will be given in 'units'.

In that case, the **composition of the medication** can be specified implicitly (with the use of a medication code) or explicitly, for example by listing the (active) ingredient(s) of the medication.

Magistral prescriptions can be entered as well. This can be done by means of the option listed above to enter coded ingredients and/or by entering the composition and preparation method as free text. This is a partial information model

1.3 Mindmap

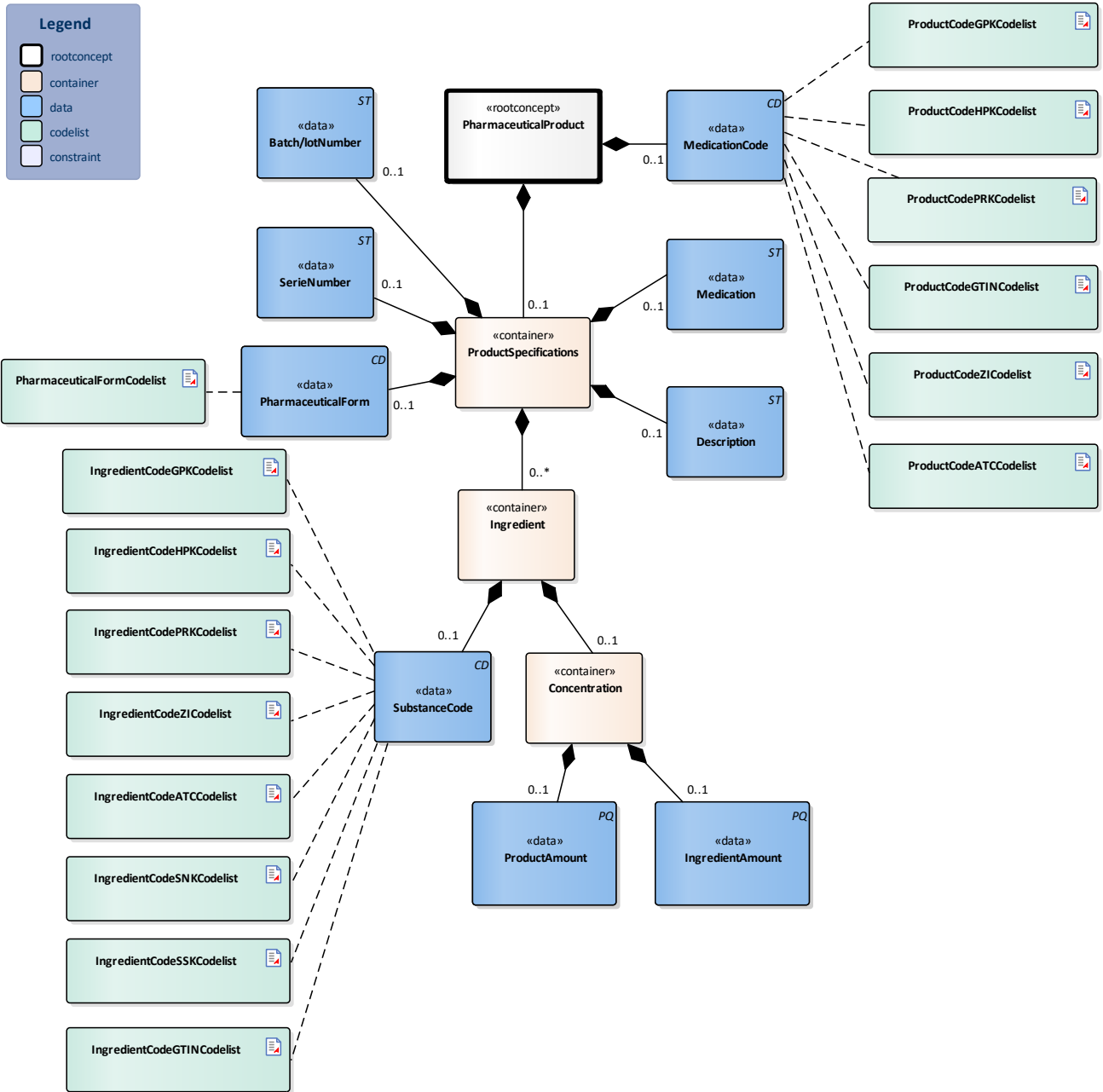
1.4 Purpose

The purpose of Product is to unambiguously describe the medication to be used.

1.5 Patient Population

1.6 Evidence Base

1.7 Information Model



«rootconcept»	PharmaceuticalProduct	
Definitie	Root concept of the PharmaceuticalProduct partial information model. This root concept contains all data elements of the PharmaceuticalProduct partial information model.	
Datatype		
DCM::ConceptId	NL-CM:9.7.19926	
Opties		

«data»	MedicationCode	
Definitie	Coding medication in the Netherlands is done on the basis of the G standard (issued by Z index), which is filled under the direction of KNMP. The coded medication can be expressed as: <ul style="list-style-type: none"> • Global Trade Item Number (GTIN) • Z index number (ZI number) • Trade product code (HPK) • Prescription code (PRK) • Generic product code (GPK) • Anatomic Therapeutic Classification code (ATC) The GTIN enables identification of the product including its origin with a	

	<p>barcode.</p> <p>The ZI number represents the trade product and the package size.</p> <p>The HPK is the code for the trade product (with the brand name) as used per dose/per time the medication is taken (1 pill, 1 puff, 1ml).</p> <p>The PRK contains als GPK information supplemented with information needed to prescribe the right product. This level is intended to facilitate generic prescription of drugs.</p> <p>The GPK defines the pharmaceutical characteristics of a product: ingredients, strengths, units, pharmaceutical form and route of administration.</p> <p>The Substance Name Code (SNK) is the (active) compound.</p> <p>Further information about the G Standaard levels see https://www.z-index.nl.</p> <p>So-called 90.000.000 numbers are used in local IT systems. These numbers shall not be used for external communication. In this case only the description (not the code) may be included. This is in accordance with national agreements (Nictiz Standard).</p>	
Datatype	CD	
DCM::ConceptId	NL-CM:9.7.19927	
DCM::ExampleValue	PRK 67903 PARACETAMOL TABLET 500MG	
DCM::ValueSet	ProductCodeHPKCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.5
DCM::ValueSet	ProductCodeATCCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.7
DCM::ValueSet	ProductCodeGPKCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.6
DCM::ValueSet	ProductCodeZICodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.1
DCM::ValueSet	ProductCodeGTINCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.2
DCM::ValueSet	ProductCodePRKCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.3
Opties		

«container»	ProductSpecifications	
Definitie	<p>Container of the ProductSpecifications concept. This container contains all data elements of the ProductSpecifications concept.</p> <p>Product specifications are required if the product code is not sufficient to ascertain the active substances and strength.</p>	
Datatype		
DCM::ConceptId	NL-CM:9.7.19928	
Opties		

«data»	Batch/lotNumber	
Definitie	<p>The batch/lot number provides a unique identification of the origin of information such as the production batch or machine number. The number is constructed according to the GS1 standard AI(10).(https://www.gs1.nl/sectorafspraken-over-standaarden/unieke-identificatie-en-productdata-gezondheidszorg/gs1-barcodes-2#application-identifiers-ais)</p>	
Datatype	ST	
DCM::ConceptId	NL-CM:9.7.22279	
Opties		

«data»	SerieNumber	
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Definitie	The serial number uniquely identifies the source of information of the dose itself. The number is constructed according to the GS1 standard AI(21). (https://www.gs1.nl/sectorafspraken-over-standaarden/unieke-identificatie-en-productdata-gezondheidszorg/gs1-barcodes-2#application-identifiers-ais)	
Datatype	ST	
DCM::ConceptId	NL-CM:9.7.22280	
Opties		

«data»	PharmaceuticalForm	
Definitie	The pharmaceutical form indicates the form of the medication. Examples include: tablet, suppository, infusion liquid, ointment. If the product has a GPK code in the G standard, the form will be known in the G standard. For products without a code (free text, preparation by the pharmacy), the means of administration can be entered.	
Datatype	CD	
DCM::ConceptId	NL-CM:9.7.19931	
DCM::ExampleValue	230 (TABLET)	
DCM::ValueSet	PharmaceuticalFormCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.8
Opties		

«data»	Medication	
Definitie	For medication which has no code, enter the complete name of the pharmaceutical product here.	
Datatype	ST	
DCM::ConceptId	NL-CM:9.7.19929	
DCM::ExampleValue	PARACETAMOL 500MG TABLET	
Opties		

«data»	Description	
Definitie	A textual description of the type of medication (including relevant properties of the composition and preparation method if possible), which is only used if no coded indication from the G Standard is available (historical data regarding magistral preparation which has been entered as free text instead of entering the substance codes).	
Datatype	ST	
DCM::ConceptId	NL-CM:9.7.19784	
Opties		

«container»	Ingredient	
Definitie	<p>Container of the Ingredient concept. This container contains all data elements of the Ingredient concept.</p> <p>A product contains one or more active substances and excipients. These are usually determined by the product code. For medication prepared or compounded by the local pharmacy, each ingredient must be entered separately.</p> <p>The active substances play an important role, as they:</p> <ol style="list-style-type: none"> determine the pharmacotherapeutic effect of the medication and serve as the basis for the indication of the strength of the medication 	

	(e.g. 200 mg).
Datatype	
DCM::ConceptId	NL-CM:9.7.19932
DCM::ExampleValue	captopril
Opties	

«data»	SubstanceCode
Definitie	<p>Active substance or excipient.</p> <p>Here, the same codes can be used as for the ProductCode (for dilutions and compounds in particular), but now, the SSK and SNK codes can also be used to indicate a substance (to list ingredients of local products prepared by the pharmacy).</p> <ul style="list-style-type: none"> • GTIN International Article Number • Z-index number (ZI-number) • Trade product code (HPK) • Prescription code (PRK) • Generic product code (GPK) • Anatomic therapeutic classification (ATC) • Substance name code (SNK) • Substance name code with route of administration (SKK)
Datatype	CD
DCM::ConceptId	NL-CM:9.7.19934
DCM::ExampleValue	SNK 28045
DCM::ValueSet	IngredientCodeATCCodelist OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.13
DCM::ValueSet	IngredientCodeSSKodelist OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.15
DCM::ValueSet	IngredientCodeGPKodelist OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.9
DCM::ValueSet	IngredientCodeHPKodelist OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.10
DCM::ValueSet	IngredientCodePRKodelist OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.11
DCM::ValueSet	IngredientCodeGTINodelist OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.16
DCM::ValueSet	IngredientCodeSNKodelist OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.14
DCM::ValueSet	IngredientCodeZIOodelist OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.12
Opties	

«container»	Concentration
Definitie	<p>The relative amount of this ingredient in this product.</p> <p>Calculation of Concentration = Ingredient Amount ÷ Product Amount.</p> <p>This could be a concentration if the medication is dissolved in liquid, for example.</p>
Datatype	
DCM::ConceptId	NL-CM:9.7.19933
DCM::ExampleValue	25mg/stuk of 50IE/ml of 200mg/500ml
Opties	

«data»	IngredientAmount
Definitie	The amount and unit of this ingredient. This is the numerator for the

	calculation of the concentration. The unit should be selected from the G Standard (Table 902).	
Datatype	PQ	
DCM::ConceptId	NL-CM:9.7.22277	
DCM::ExampleValue	5 ml 20 mg	
Opties		

«data»	ProductAmount	
Definitie	Amount of the product. This is the denominator for the calculation of the concentration. Optionally a translation to NHG table Gebruiksvoorschriften (Table 25) is also allowed.	
Datatype	PQ	
DCM::ConceptId	NL-CM:9.7.22278	
DCM::ExampleValue	200 ml 500 mg	
Opties		

«document»	ProductCodeZICodelist	
Definitie		
Datatype		
DCM::ValueSetBinding	Required	
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.6 0.40.2.9.7.1	
HCIM::ValueSetLanguage	--	
Opties		
ProductCodeZICodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.1
Codes	Coding Syst. Name	Coding System OID
Alle waarden	G-Standaard Artikelen (ook KNMP-nummer, ATKODE)	2.16.840.1.113883.2.4.4.8

«document»	ProductCodeGTINCodelist	
Definitie		
Datatype		
DCM::ValueSetBinding	Required	
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.6 0.40.2.9.7.2	
HCIM::ValueSetLanguage	--	
Opties		
ProductCodeGTINCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.2
Codes	Coding Syst. Name	Coding System OID
Alle waarden	Global Trade Item Number (GTIN)	1.3.160

«document»	ProductCodePRKCodelist	
Definitie		
Datatype		
DCM::ValueSetBinding	Required	
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.6 0.40.2.9.7.3	
HCIM::ValueSetLanguage	--	

Opties		
ProductCodePRKCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.3
Codes	Coding Syst. Name	Coding System OID
Alle waarden	G-Standaard Voorschrijfproducten (PRK)	2.16.840.1.113883.2.4.4.10

«document»	ProductCodeHPKCodelist	
Definitie		
Datatype		
DCM::ValueSetBinding	Required	
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.60.40.2.9.7.5	
HCIM::ValueSetLanguage	--	
Opties		
ProductCodeHPKCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.5
Codes	Coding Syst. Name	Coding System OID
Alle waarden	G-Standaard Handels Product Kode (HPK)	2.16.840.1.113883.2.4.4.7

«document»	ProductCodeGPKCodelist	
Definitie		
Datatype		
DCM::ValueSetBinding	Required	
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.60.40.2.9.7.6	
HCIM::ValueSetLanguage	--	
Opties		
ProductCodeGPKCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.6
Codes	Coding Syst. Name	Coding System OID
Alle waarden	G-Standaard Generieke Product Kode (GPK)	2.16.840.1.113883.2.4.4.1

«document»	ProductCodeATCCodelist	
Definitie		
Datatype		
DCM::ValueSetBinding	Required	
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.60.40.2.9.7.7	
HCIM::ValueSetLanguage	--	
Opties		
ProductCodeATCCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.7
Codes	Coding Syst. Name	Coding System OID
Alle waarden	Anatomic Therapeutic Classification (ATC)	2.16.840.1.113883.6.73

«document»	PharmaceuticalFormCodelist
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Definitie		
Datatype		
DCM::ValueSetBinding	Required	
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.6 0.40.2.9.7.8	
HCIM::ValueSetLanguage	--	
Opties		
FarmaceutischeVormCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.8
Codes	Coding Syst. Name	Coding System OID
Alle waarden	G-Standaard Farmaceutische vormen	2.16.840.1.113883.2.4.4.11

«document»	IngredientCodeGPKCodelist	
Definitie		
Datatype		
DCM::ValueSetBinding	Required	
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.6 0.40.2.9.7.9	
HCIM::ValueSetLanguage	--	
Opties		
IngredientCodeGPKCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.9
Codes	Coding Syst. Name	Coding System OID
Alle waarden	G-Standaard Generieke Product Kode (GPK)	2.16.840.1.113883.2.4.4.1

«document»	IngredientCodeHPKCodelist	
Definitie		
Datatype		
DCM::ValueSetBinding	Required	
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.6 0.40.2.9.7.10	
HCIM::ValueSetLanguage	--	
Opties		
IngredientCodeHPKCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.10
Codes	Coding Syst. Name	Coding System OID
Alle waarden	G-Standaard Handels Product Kode (HPK)	2.16.840.1.113883.2.4.4.7

«document»	IngredientCodePRKCodelist	
Definitie		
Datatype		
DCM::ValueSetBinding	Required	
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.6 0.40.2.9.7.11	
HCIM::ValueSetLanguage	--	
Opties		

IngredientCodePRKCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.11
Codes	Coding Syst. Name	Coding System OID
Alle waarden	G-Standaard Voorschrijfproducten (PRK)	2.16.840.1.113883.2.4.4.10

«document»		IngredientCodeZICodelist	
Definitie			
Datatype			
DCM::ValueSetBinding	Required		
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.60.40.2.9.7.12		
HCIM::ValueSetLanguage	--		
Opties			
IngredientCodeZICodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.12	
Codes	Coding Syst. Name	Coding System OID	
Alle waarden	G-Standaard Artikelen (ook KNMP-nummer, ATKODE)	2.16.840.1.113883.2.4.4.8	

«document»		IngredientCodeATCCodelist	
Definitie			
Datatype			
DCM::ValueSetBinding	Required		
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.60.40.2.9.7.13		
HCIM::ValueSetLanguage	--		
Opties			
IngredientCodeATCCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.13	
Codes	Coding Syst. Name	Coding System OID	
Alle waarden	Anatomic Therapeutic Classification (ATC)	2.16.840.1.113883.6.73	

«document»		IngredientCodeSNKCodelist	
Definitie			
Datatype			
DCM::ValueSetBinding	Required		
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.60.40.2.9.7.14		
HCIM::ValueSetLanguage	--		
Opties			
IngredientCodeSNKCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.14	
Codes	Coding Syst. Name	Coding System OID	
Alle waarden	G-standaard Stofnaamcode (SNK)	2.16.840.1.113883.2.4.4.1.750	

«document»		IngredientCodeSSKCodelist	
Definitie			
Datatype			
DCM::ValueSetBinding	Required		
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.6 0.40.2.9.7.15		
HCIM::ValueSetLanguage	--		
Opties			
IngredientCodeSSKCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.15	
Codes	Coding Syst. Name	Coding System OID	
Alle waarden	G-standaard Stofnaamcode i.c.m. toedieningsweg (SSK)	2.16.840.1.113883.2.4.4.1.725	

«document»		IngredientCodeGTINCodelist	
Definitie			
Datatype			
DCM::ValueSetBinding	Required		
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.6 0.40.2.9.7.16		
HCIM::ValueSetLanguage	--		
Opties			
IngredientCodeGTINCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.16	
Codes	Coding Syst. Name	Coding System OID	
Alle waarden	Global Trade Item Number (GTIN)	1.3.160	

Legend	
Definitie	
Datatype	
Opties	

1.8 Example Instances

Afgesproken geneesmiddel
Farmaceutischproduct
Lisinopril tablet 10mg
Methotrexaat injvlst 25mg/ml 0,6 ml

1.9 Instructions

1.10 Interpretation

1.11 Care Process

1.12 Example of the Instrument

1.13 Constraints

1.14 Issues

1.15 References

1. ATC [Online] Beschikbaar op: https://www.whocc.no/atc/structure_and_principles// [Geraadpleegd: 13 september 2023].

1.16 Functional Model

1.17 Traceability to other Standards

1.18 Disclaimer

The Health and Care Information Models (a.k.a Clinical Building Block) has been made in collaboration with several different parties in healthcare. These parties asked Nictiz to manage good maintenance and development of the information models. Hereafter, these parties and Nictiz are referred to as the collaborating parties. The collaborating parties paid utmost attention to the reliability and topicality of the data in these Health and Care Information Models. Omissions and inaccuracies may however occur. The collaborating parties are not liable for any damages resulting from omissions or inaccuracies in the information provided, nor are they liable for damages resulting from problems caused by or inherent to distributing information on the internet, such as malfunctions, interruptions, errors or delays in information or services provide by the parties to you or by you to the parties via a website or via e-mail, or any other digital means. The collaborating parties will also not accept liability for any damages resulting from the use of data, advice or ideas provided by or on behalf of the parties by means of the Health and Care Information Models. The parties will not accept any liability for the content of information in this Health and Care Information Model to which or from which a hyperlink is referred. In the event of contradictions in mentioned Health and Care Information Model documents and files, the most recent and highest version of the listed order in the revisions will indicate the priority of the documents in question. If information included in the digital version of a Health and Care Information Model is also distributed in writing, the written version will be leading in case of textual differences. This will apply if both have the same version number and date. A definitive version has priority over a draft version. A revised version has priority over previous versions.

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