

Health & Care Information Model: nl.zorg.part.Product-v1.0

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1. nl.zorg.part.Product-v1.0

| | |
|---------------------------------|--|
| 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 | Product |
| DCM::LifecycleStatus | Final |
| DCM::ModelerList | Architectuurgroep Registratie aan de Bron |
| DCM::Name | nl.zorg.part.Product |
| DCM::PublicationDate | 04-09-2017 |
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| DCM::RevisionDate | 04-09-2017 |
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| DCM::Version | 1.0 |
| HCIM::PublicationLanguage | EN |

1.1 Revision History

Publicatieversie 1.0 (04-09-2017)

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

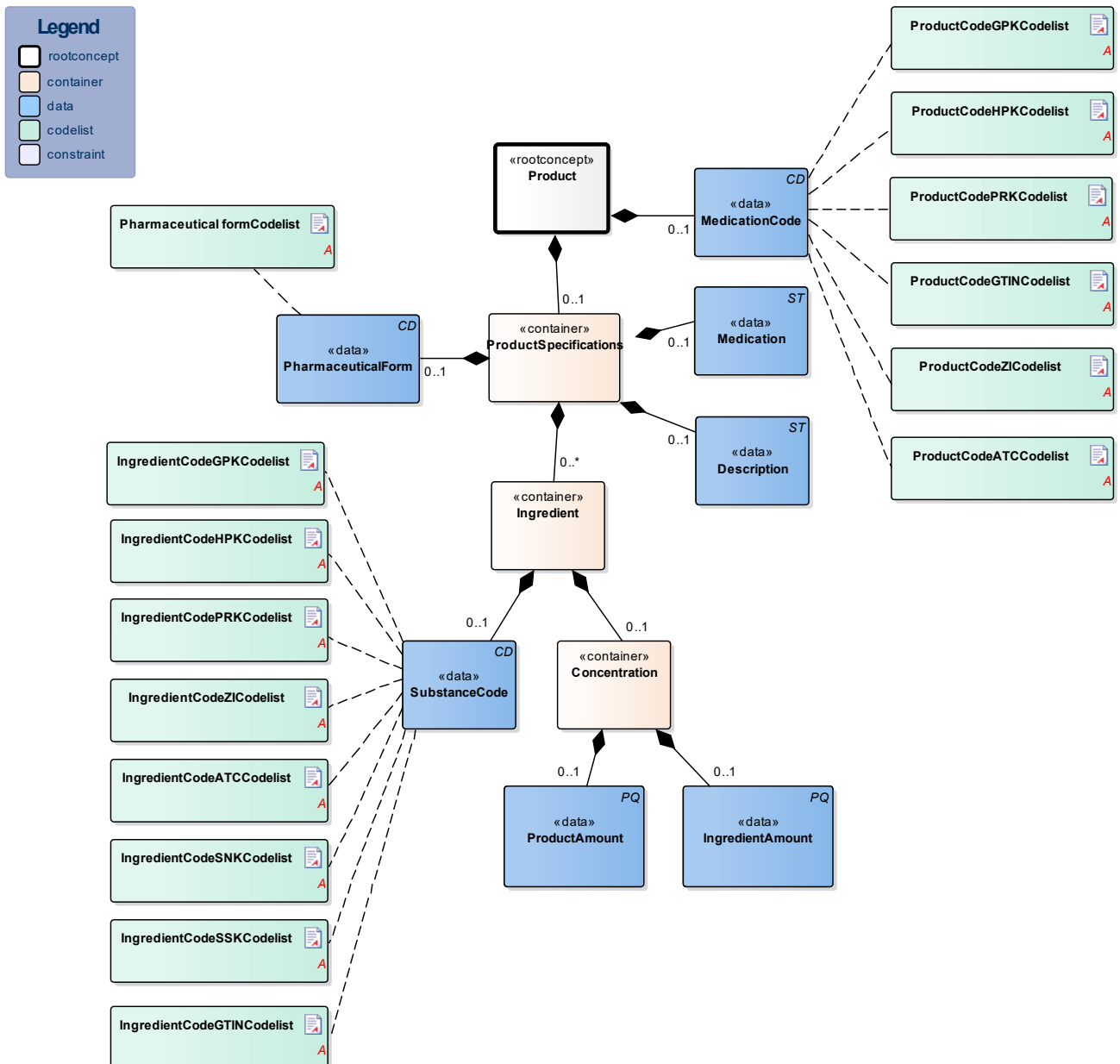
1.4 Purpose

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» | Product | |
|-----------------------|--|--|
| Definitie | <p>Root concept of the Product partial information model. This root concept contains all data elements of the Product partial information model.</p> <p>The prescribed product is usually a medicine. However, medical aids and bandages can also be prescribed and supplied via the pharmacy. Strictly speaking, food and blood products do not belong in the medication category, but can be prescribed and supplied by a pharmacy as well.</p> <p>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.</p> <p>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).</p> <p>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'.</p> <p>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) substance(s) of the medication.</p> <p>Prescriptions to be prepared by the pharmacy 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.</p> | |
| Datatype | | |
| DCM::ConceptId | NL-CM:9.7.19926 | |
| 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» | PharmaceuticalForm | |
|------------------|--|--|
| Definitie | <p>The pharmaceutical form indicates the form of the medication in accordance with the route of administration. Examples include: tablet, suppository, infusion liquid, ointment. If the product has a generic 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.</p> | |

| | | |
|--------------------------|-----------------------------|--|
| Datatype | CD | |
| DCM::ConceptId | NL-CM:9.7.19931 | |
| DCM::ExampleValue | 230 (TABLET) | |
| DCM::ValueSet | Pharmaceutical formCodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.8 |
| Opties | | |

| «data» | MedicationCode |
|------------------|---|
| Definitie | <p>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.</p> <p>The coded medication can be expressed as:</p> <ul style="list-style-type: none"> • GTIN International Article Number • KNMP article number = ATKODE (2.16.840.1.113883.2.4.4.8) • Trade product code (HPK) • Prescription code (PRK) • Generic product code (GPK) • Anatomic Therapeutic Classification code (ATC) • SNOMED CT code • Substance Name Code (SNK) • Substance Name Code, in combination with Route of Administration (SSK) • 90.000.000 number (individual code setting) (or similar from the facility) <p>The GTIN enables identification of the product including its origin with a barcode.</p> <p>The ATKODE is the number with which wholesalers link the article to pharmacy systems (e.g. a box with 3 strips of 10 tablets).</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 codes for the same product as the HPK does, but is not linked to a manufacturer (no brand name, no characteristics such as color, geometrical shape etc.). This code will enable a generic prescription, while still defining which trade product can be taken (e.g. a 200ml bag).</p> <p>The generic product code defines the composition of a product, and is sufficient for recording the prescription, but not the order.</p> <p>The prescription code (PRK) was developed and added to the older generic (GPK) and supplier-specific (HPK, ATKODE) coding to enable a generic product to be entered without listing a specific brand on the one hand, and to enable providing enough information to support the pharmacy supplying it on the other.</p> <p>The Substance Name Code (SNK) and the Substance Name Code, in combination with Route of Administration (SSK) are used to prescribe at a more generic level.</p> <p>The GTIN coding is used for the implementation of a barcode scanning standard and to be able to trace the origin of the product.</p> <p>The 90.000.000 number is used in accordance with national agreements.</p> |
| Datatype | CD |

| | | |
|--------------------------|---|--|
| DCM::ConceptId | NL-CM:9.7.19927 | |
| DCM::ExampleValue | 55026 (CARBASALAATCALCIUM TABLET 100MG) | |
| DCM::ValueSet | ProductCodeHPKCodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.5 |
| DCM::ValueSet | ProductCodePRKCodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.3 |
| DCM::ValueSet | ProductCodeGTINCodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.2 |
| DCM::ValueSet | ProductCodeZICodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.1 |
| 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 |
| Opties | | |

| «data» | | Medication |
|--------------------------|---|-------------------|
| Definitie | There is no code for medication entered in free text. In these cases, enter the complete description. | |
| 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 (magistral preparation). | |
| 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> <ul style="list-style-type: none"> a) determine the pharmacotherapeutic effect of the medication and b) serve as the basis for the indication of the strength of the medication (e.g. 200mg). | |
| 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 ATC, 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 • KNMP article number • Trade product code (HPK) • Prescription code (PRK) • Generic product code (GPK) • ATC (anatomic therapeutic classification) • SSK (substance name code with route of administration) • SNK (substance name code) <p>The ATC is an international classification of pharmaceutical substances without a reference to specific products on the market. Therefore, the ATC code of a generic product will not contain a reference to a certain dose, pharmaceutical form or route of administration; it will only contain a reference to the ingredients (not the amount/concentration/strength).</p> | |
| Datatype | CD | |
| DCM::ConceptId | NL-CM:9.7.19934 | |
| DCM::ExampleValue | ATC C09BA01 | CAPTOPRIL |
| DCM::ValueSet | IngredientCodeATCCodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.13 |
| DCM::ValueSet | IngredientCodeGTINCodeList | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.16 |
| DCM::ValueSet | IngredientCodeSNKCodeList | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.14 |
| DCM::ValueSet | IngredientCodeZICodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.12 |
| DCM::ValueSet | IngredientCodePRKCodeList | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.11 |
| DCM::ValueSet | IngredientCodeHPKCodeList | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.10 |
| DCM::ValueSet | IngredientCodeGPKCodeList | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.9 |
| DCM::ValueSet | IngredientCodeSSKCodeList | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.15 |
| 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 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. |
| Datatype | PQ |
| DCM::ConceptId | NL-CM:9.7.22278 |
| DCM::ExampleValue | 200 ml 500 mg |
| Opties | |

| «document» | ProductCodeZICodelist |
|------------------------|--|
| Definitie | |
| Datatype | |
| DCM::ValueSetId | 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.1 |
| 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::ValueSetId | 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.2 |
| 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::ValueSetId | 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.3 |
| 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::ValueSetId | 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.5 | |
| Opties | | |
| ProductCodeHPKCodelist | | 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::ValueSetId | 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.6 | |
| Opties | | |
| ProductCodeGPKCodelist | | 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::ValueSetId | 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.7 | |
| Opties | | |
| ProductCodeATCCodelist | | 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» | | Pharmaceutical formCodelist |
|----------------------------|--|---|
| Definitie | | |
| Datatype | | |
| DCM::ValueSetId | 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.8 | |
| Opties | | |
| FarmaceutischeVormCodelist | | 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::ValueSetId | 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.9 | |

| | | |
|-----------------------------------|--|--|
| 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::ValueSetId | 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.10 | |
| 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::ValueSetId | 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.11 | |
| 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::ValueSetId | 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.12 | |
| 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::ValueSetId | 2.16.840.1.113883.2.4.3.11.60.40.2.9.7.13 | |
| 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::ValueSetId | 2.16.840.1.113883.2.4.3.11. 60.40.2.9.7.14 | | |
| 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::ValueSetId | 2.16.840.1.113883.2.4.3.11. 60.40.2.9.7.15 | | |
| 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::ValueSetId | 2.16.840.1.113883.2.4.3.11. 60.40.2.9.7.16 | | |
| 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 | |

1.8 Example Instances

| Afgesproken geneesmiddel |
|------------------------------------|
| Product |
| Lisinopril tablet 10mg |
| Methotrexaat injvst 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

1.16 Functional Model

1.17 Traceability to other Standards

1.18 Disclaimer

This Health and Care Information Model (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 this Health and Care Information Model. 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 this 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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