

# **Health & Care Information Model:**

## **nl.zorg.MedicationAgreement-v1.2**

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# Content

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# 1. nl.zorg.MedicationAgreement-v1.2

DCM::CoderList	Projectgroep Medicatieproces
DCM::ContactInformation.Address	
DCM::ContactInformation.Name	*
DCM::ContactInformation.Telcom	
DCM::ContentAuthorList	Projectgroep Medicatieproces
DCM::CreationDate	1-2-2017
DCM::DeprecatedDate	
DCM::DescriptionLanguage	nl
DCM::EndorsingAuthority.Address	
DCM::EndorsingAuthority.Name	PM
DCM::EndorsingAuthority.Telcom	
DCM::Id	2.16.840.1.113883.2.4.3.11.60.40.3.9.6
DCM::KeywordList	Medicatie, Afspraak
DCM::LifecycleStatus	Final
DCM::ModelerList	Kerngroep Registratie aan de Bron
DCM::Name	nl.zorg.Medicatieafspraak
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DCM::Version	1.2
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## 1.1 Revision History

Publicatieversie 1.0 (04-09-2017)

Publicatieversie 1.0.1 (31-12-2017)

Bevat: ZIB-618, ZIB-643.

Publicatieversie 1.1 (31-01-2020)

Bevat: ZIB-888.

Publicatieversie 1.2 (01-09-2020)

Bevat: ZIB-911, ZIB-1020, ZIB-1021.

## 1.2 Concept

A medication agreement is a prescriber's proposal for a patient to use medication. An agreement to discontinue the use of medication is also a medication agreement.

## 1.3 Mindmap

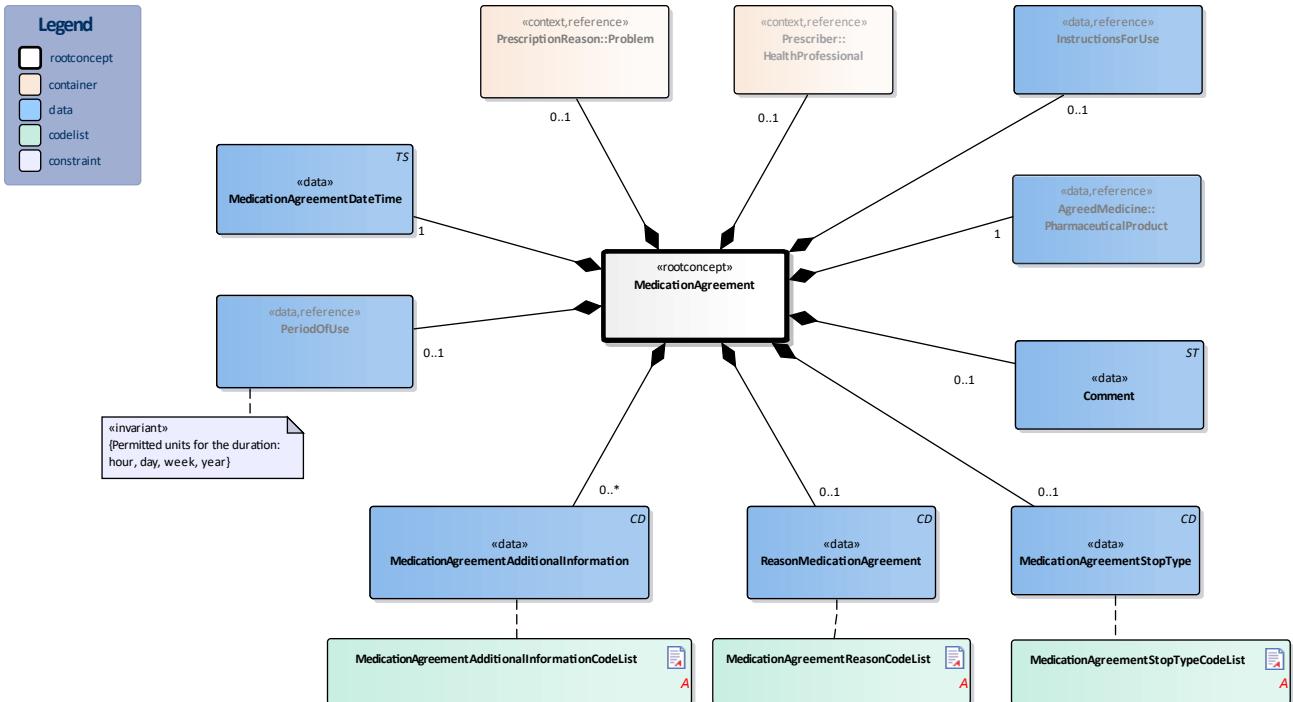
## 1.4 Purpose

The goal of the medication agreement is to provide insight into the agreements reached between the prescriber and the patient on the use of medication.

## 1.5 Patient Population

## 1.6 Evidence Base

## 1.7 Information Model



<b>&lt;&lt;rootconcept&gt;&gt;</b>	MedicationAgreement
<b>Definitie</b>	Root concept of the MedicationAgreement information model. This root concept contains all data elements of the MedicationAgreement information model.
<b>Datatype</b>	
<b>DCM::ConceptId</b>	NL-CM:9.6.9580
<b>DCM::DefinitionCode</b>	SNOMED CT: 16076005 Prescription (procedure)
<b>Opties</b>	

<b>&lt;&lt;context&gt;&gt;</b>	Prescriber::HealthProfessional	
<b>Definitie</b>	The health professional that entered the medication agreement with the patient.	
<b>Datatype</b>		
<b>DCM::ConceptId</b>	NL-CM:9.6.1030	
<b>DCM::ReferencedConceptId</b>	NL-CM:17.1.1	This is a reference to the rootconcept of information model HealthProfessional.
<b>Opties</b>		

<b>&lt;&lt;context&gt;&gt;</b>	PrescriptionReason::Problem
<b>Definitie</b>	The medical reason for the prescription or for use of the medication. This can be used to enter a medical indication which was the direct cause for prescription or for use of the medication in question.  It can concern every type of problem (or condition) of the patient, almost

	all diagnoses, complaints or symptoms.  Please note: The BST401T file of the G standard contains a “special reference” to indicate that “exchange of the reason for prescription is essential”.	
<b>Datatype</b>		
<b>DCM::ConceptId</b>	NL-CM:9.6.23133	
<b>DCM::DefinitionCode</b>	SNOMED CT: 112201000146104 Medical reason for prescription (observable entity)	
<b>DCM::ReferencedConceptId</b>	NL-CM:5.1.1	This is a reference to the rootconcept of information model Problem.
<b>Opties</b>		

<b>«data»</b>	AgreedMedicine::PharmaceuticalProduct	
<b>Definitie</b>	The medicine agreed upon to be used.	
<b>Datatype</b>		
<b>DCM::ConceptId</b>	NL-CM:9.6.19925	
<b>DCM::ReferencedConceptId</b>	NL-CM:9.7.19926	This is a reference to the rootconcept of the partial information model PharmaceuticalProduct.
<b>Opties</b>		

<b>«data»</b>	InstructionsForUse	
<b>Definitie</b>	Instructions for the use of the medication, e.g. dose and route of administration.	
<b>Datatype</b>		
<b>DCM::ConceptId</b>	NL-CM:9.6.23240	
<b>DCM::ReferencedConceptId</b>	NL-CM:9.12.22504	This is a reference to the rootconcept of the partial information model InstructionsForUse.
<b>Opties</b>		

<b>«data»</b>	MedicationAgreementDateTime	
<b>Definitie</b>	The time at which the agreement was made. Appointment date + time are required (order of the appointments must be clear in cases with multiple appointments on one day)	
<b>Datatype</b>	TS	
<b>DCM::ConceptId</b>	NL-CM:9.6.19757	
<b>DCM::ExampleValue</b>	27-01-2015	
<b>Opties</b>		

<b>«data»</b>	PeriodOfUse	
<b>Definitie</b>	Start date: This is the time at which the agreement was to take effect (or took effect or will take effect). This is the time at which the instructions for use in this agreement start. In the case of an agreement to discontinue use, this is the start date of the original medication agreement. The end date indicates from when the medication is to be discontinued.  <b>Duration:</b> The intended duration of use. E.g. 5 days or 8 weeks. It is not allowed to indicate the duration in months, because different months have a variable duration in days.  <b>End date:</b> The time at which the period of use ends (or ended or will end).	

	In the case of an agreement to discontinue use, this is the time at which the medication is to be discontinued. To avoid confusion between 'to' and 'up to', the submission of time is always mandatory for the end date.  With medication for an indefinite period only a start date is indicated.	
<b>Datatype</b>		
<b>DCM::ConceptId</b>	NL-CM:9.6.19936	
<b>DCM::ExampleValue</b>	12-03-2012 16:00	
<b>DCM::ReferencedConceptId</b>	NL-CM:20.3.1	This is a reference to the rootconcept of partial information model TimeInterval.
<b>Opties</b>		

«data»	MedicationAgreementStopType	
<b>Definitie</b>	Stop type, the manner in which this medication is discontinued (temporary or definitive).	
<b>Datatype</b>	CD	
<b>DCM::ConceptId</b>	NL-CM:9.6.19954	
<b>DCM::DefinitionCode</b>	SNOMED CT: 274512008 Drug therapy discontinued (situation)	
<b>DCM::ValueSet</b>	MedicationAgreementStopTypeCodeList	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.6.1
<b>Opties</b>		

«data»	ReasonMedicationAgreement	
<b>Definitie</b>	Reason for this agreement. This can be the reason to start, change or stop the medication treatment.	
<b>Datatype</b>	CD	
<b>DCM::ConceptId</b>	NL-CM:9.6.22094	
<b>DCM::DefinitionCode</b>	SNOMED CT: 112241000146101 Reason for prescription (observable entity)	
<b>DCM::ValueSet</b>	MedicationAgreementReasonCodeList	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.6.2
<b>Opties</b>		

«data»	MedicationAgreementAdditionalInformation	
<b>Definitie</b>	Additional information includes details on the structure of the agreement made that are relevant for pharmacovigilance and fulfillment by the pharmacist. This can be used e.g. to indicate that there was a conscious decision to deviate from the norm or that the agreement is to be structured in a certain way.  See also the Instructions section for more information about use of the element.	
<b>Datatype</b>	CD	
<b>DCM::ConceptId</b>	NL-CM:9.6.23283	
<b>DCM::ValueSet</b>	MedicationAgreementAdditionalInformationCodeList	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.6.3
<b>Opties</b>		

«data»	Comment	
<b>Definitie</b>	Comments regarding to the medication agreement. For example: in consultation with the medical specialist.	
<b>Datatype</b>	ST	

<b>DCM::ConceptId</b>	NL-CM:9.6.22273	
<b>DCM::DefinitionCode</b>	LOINC: 48767-8 Annotation comment	
<b>Opties</b>		

«document»	MedicationAgreementAdditionalInformationCodeList
Definitie	
Datatype	
DCM::ValueSetBinding	Required
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11. 60.40.2.9.6.3
Opties	

MedicatieafspraakAanvullendeInformatieCodelijst			OID:	2.16.840.1.113883.2.4.3.11.60.40.2.9.6.3
Concept Name	Concept Code	Coding Syst. Name	Coding System OID	Description
Bewust hoge dosering	1	Voorlopige G-std thesaurus 2050	2.16.840.1.113883.2.4.3.11.60 .20.77.5.2.3.2050	Bewust hoge dosering
Bewust lage dosering	2	Voorlopige G-std thesaurus 2050	2.16.840.1.113883.2.4.3.11.60 .20.77.5.2.3.2050	Bewust lage dosering
Bewust afwijkende toedieningsweg	3	Voorlopige G-std thesaurus 2050	2.16.840.1.113883.2.4.3.11.60 .20.77.5.2.3.2050	Bewust afwijkende toedieningsweg
Medische noodzaak	4	Voorlopige G-std thesaurus 2050	2.16.840.1.113883.2.4.3.11.60 .20.77.5.2.3.2050	Medische noodzaak
Profylaxe	5	Voorlopige G-std thesaurus 2050	2.16.840.1.113883.2.4.3.11.60 .20.77.5.2.3.2050	Profylaxe
Wijziging in GDS per direct	6	Voorlopige G-std thesaurus 2050	2.16.840.1.113883.2.4.3.11.60 .20.77.5.2.3.2050	Wijziging in GDS per direct
Wijziging in GDS per rolwissel	7	Voorlopige G-std thesaurus 2050	2.16.840.1.113883.2.4.3.11.60 .20.77.5.2.3.2050	Wijziging in GDS per rolwissel

«document»	MedicationAgreementReasonCodeList
Definitie	
Datatype	
DCM::ValueSetBinding	Required
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11. 60.40.2.9.6.2
Opties	

RedenMedicatieafspraakCodelijst			OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.6.2	
Concept Name	Concept Code	Coding Syst. Name	Coding System OID	Description
Medication commenced (finding)	266709005	SNOMED CT	2.16.840.1.113883.6.96	Starten medicamenteuze behandeling
Administration of drug or medicament contraindicated (situation)	438833006	SNOMED CT	2.16.840.1.113883.6.96	Contra-indicatie

Drug interaction (disorder)	79899007	SNOMED CT	2.16.840.1.113883.6.96	Interactie
Hypersensitivity condition (disorder)	473010000	SNOMED CT	2.16.840.1.113883.6.96	Overgevoeligheid
Geen of onvoldoende effect	5	Medicatieafspraak Reden	2.16.840.1.113883.2.4.3.11.60.20.77.5.2.2	Geen of onvoldoende effect <b>(DEPRECATED)</b>
Lack of drug action (finding)	58848006	SNOMED CT	2.16.840.1.113883.6.96	Geen of onvoldoende effect
Te sterk effect	6	Medicatieafspraak Reden	2.16.840.1.113883.2.4.3.11.60.20.77.5.2.2	Te sterk effect <b>(DEPRECATED)</b>
Too strong drug action (finding)	1122510001 46103	SNOMED CT	2.16.840.1.113883.6.96	Te sterk effect
(Mogelijke) bijwerking	7	Medicatieafspraak Reden	2.16.840.1.113883.2.4.3.11.60.20.77.5.2.2	(Mogelijke) bijwerking <b>(DEPRECATED)</b>
At risk of medication side effect (finding)	704417003	SNOMED CT	2.16.840.1.113883.6.96	(Mogelijke) bijwerking
Toedieningsweg voldoet niet	8	Medicatieafspraak Reden	2.16.840.1.113883.2.4.3.11.60.20.77.5.2.2	Toedieningsweg voldoet niet <b>(DEPRECATED)</b>
Insufficient route of administration (finding)	1121910001 46101	SNOMED CT	2.16.840.1.113883.6.96	Toedieningsweg voldoet niet
Indicatie vervallen	9	Medicatieafspraak Reden	2.16.840.1.113883.2.4.3.11.60.20.77.5.2.2	Indicatie vervallen <b>(DEPRECATED)</b>
Drug treatment not indicated (situation)	183966005	SNOMED CT	2.16.840.1.113883.6.96	Indicatie vervallen
Beleidswijziging	10	Medicatieafspraak Reden	2.16.840.1.113883.2.4.3.11.60.20.77.5.2.2	Beleidswijziging <b>(DEPRECATED)</b>
Medication management changed (situation)	1127510001 46109	Medicatieafspraak Reden	2.16.840.1.113883.2.4.3.11.60.20.77.5.2.2	Beleidswijziging
Admission to establishment (procedure)	305335007	SNOMED CT	2.16.840.1.113883.6.96	Opname
Wens patiënt	12	Medicatieafspraak Reden	2.16.840.1.113883.2.4.3.11.60.20.77.5.2.2	Wens patiënt <b>(DEPRECATED)</b>
Patient requested treatment (situation)	184003006	SNOMED CT	2.16.840.1.113883.6.96	Wens patiënt
Volgens afspraak	13	Medicatieafspraak Reden	2.16.840.1.113883.2.4.3.11.60.20.77.5.2.2	Volgens afspraak <b>(DEPRECATED)</b>
112211000146102	1122110001 46102	SNOMED CT	2.16.840.1.113883.6.96	Volgens afspraak
Hervatten beleid vorige voorschrijver	14	Medicatieafspraak Reden	2.16.840.1.113883.2.4.3.11.60.20.77.5.2.2	Hervatten beleid vorige voorschrijver <b>(DEPRECATED)</b>

Treatment previous prescriber continued (situation)	1122610001 46100	SNOMED CT	2.16.840.1.113883.6. 96	Hervatten beleid vorige voorschrijver
Geplande procedure	15	Medicatieafspraak Reden	2.16.840.1.113883.2. 4.3.11.60.20.77.5.2.2	Procedure waaronder ingreep, interferentie met gepland labonderzoek, etc. <b>(DEPRECATED)</b>
Planned procedure (situation)	405613005	SNOMED CT	2.16.840.1.113883.6. 96	Procedure waaronder ingreep, interferentie met gepland labonderzoek, etc.
Overig	OTH	NullFlavour	2.16.840.1.113883.5. 1008	Overig

«document»	MedicationAgreementStopTypeCodeList	
Definitie		
Datatype		
DCM::ValueSetBinding	Required	
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11. 60.40.2.9.6.1	
Opties		

MedicatieafspraakStopTypeCodelijst			OID: <b>2.16.840.1.113883.2.4.3.11.60.40.2.9.6.1</b>	
Concept Name	Concept Code	Coding Syst. Name	Coding System OID	Description
Tijdelijk	1	StopType	2.16.840.1.113883.2.4.3. 11.60.20.77.5.2.1	Tijdelijke onderbreking van medicamenteuze behandeling (bijvoorbeeld tijdelijk stoppen gebruik vanwege operatie). <b>(DEPRECATED)</b>
Drug therapy temporarily stopped (finding)	112171000146100	SNOMED CT	2.16.840.1.113883.6.96	Tijdelijke onderbreking van medicamenteuze behandeling (bijvoorbeeld tijdelijk stoppen gebruik vanwege operatie).
Definitief	2	StopType	2.16.840.1.113883.2.4.3. 11.60.20.77.5.2.1	Het staken van een bestaande medicamenteuze behandeling. <b>(DEPRECATED)</b>

Drug therapy definitively stopped (finding)	112161000146106	SNOMED CT	2.16.840.1.113883.6.96	Het staken van een bestaande medicamenteuze behandeling.
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Legend	
Definitie	
Datatype	
Opties	

## 1.8 Example Instances

MedicatieAfspraak DatumTijd	Gebruiksperiode			Afgesproken geneesmiddel	Voorschrijver	MedicatieAfspraak Stoptype	MedicatieAfspraak .Reden
	Ingangsdatum	Einddatum	Duur	FarmaceutischProduct	Zorgverlener		
18-9-2016 18:00:00	08-09-16	18-09-16		Lisinopril tablet 10mg	D. Bakker	Definitief	Geen of onvoldoende effect
6-3-2016 9:12:30	06-03-2016			Methotrexaat injvlst 25mg/ml 0,6 ml	R. Jansen		Starten medicamenteuze behandeling

RedenVan Voorschrijven	Gebruiksinstructie				
Probleem	Omschrijving	Doseerinstructie	Dosering  Keerdosis	Toedieningsschema  Frequentie  Interval  Weekdag  Dagdeel	
	Van 8-9-2017 tot 18-9-2017 1x per dag 1 stuk. Vanaf 18-9-2017 staken.		1 stuk	1x per dag	
Reumatoïde Artritis	Vanaf 6 maart 2016 1x per week op maandag om 14uur 15 mg (=0,6 ml)		15 mg (=0,6 ml)	1x per week op maandag (14u)	

## 1.9 Instructions

### MedicationAgreementAdditionalInformation:

When choosing a medicine, you can deviate from what is expected or from what the standard is. For example, when the hospital uses a different formulary than the community pharmacy. For reasons of efficiency, for example, one gastric acid inhibitor has been chosen in the hospital: pantoprazole.

Upon admission, a patient with omeprazole is converted to pantoprazole for the duration of the stay. When discharged, the patient goes back to omeprazole.

It is clear that something can go wrong here and that the patient takes both omeprazole and pantoprazole when there is no intervention. In the hospital's medication agreement for pantoprazole a remark can be made about the deviation so that it is clear that pantoprazole is the substitute for omeprazole or that it should be used in addition to omeprazole.

Another example are the half strengths. The hospital sometimes stocks tablets with half the strength of the normal trade preparation (own production). Where the patient enters the hospital on 25 mg chlortalidone, half a tablet once a day, he receives 12.5 mg intramural chlortalidone, one tablet once a day. Then the nursing does not have to break tablets in this case. Here there is a risk that the patient will use the 25 mg again at home, but then a whole tablet at a time in stead of half a tablet. By means of an explanation in the medication agreement (Additional information) of the last chlortalidone 25 mg, it can be indicated whether this has been a intended increase.

## **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**

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