

Health & Care Information Model:

nl.zorg.MedicationAdministration2-v3.0

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1. nl.zorg.MedicationAdministration2-v3.0

DCM::CoderList	Projectgroep Medicatieproces
DCM::ContactInformation.Address	
DCM::ContactInformation.Name	*
DCM::ContactInformation.Telecom	
DCM::ContentAuthorList	Projectgroep Medicatieproces
DCM::CreationDate	1-2-2017
DCM::DeprecatedDate	
DCM::DescriptionLanguage	nl
DCM::EndorsingAuthority.Address	
DCM::EndorsingAuthority.Name	PM
DCM::EndorsingAuthority.Telecom	
DCM::Id	2.16.840.1.113883.2.4.3.11.60.40.3.9.13
DCM::KeywordList	Medicatie, Toediening
DCM::LifecycleStatus	Final
DCM::ModelerList	Architectuurgroep Registratie aan de Bron
DCM::Name	nl.zorg.MedicatieToediening2
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DCM::PublicationStatus	Published
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DCM::RevisionDate	20-03-2024
DCM::Supersedes	nl.zorg.MedicatieToediening2-v2.0.1
DCM::Version	3.0
HCIM::PublicationLanguage	EN

1.1 Revision History

Publicatieversie 1.0 (04-09-2017)

Publicatieversie 1.0.1 (31-12-2017)

Bevat: ZIB-618.

Publicatieversie 1.1 (31-01-2020)

Bevat: ZIB-812.

Publicatieversie 1.1.1 (01-09-2020)

Bevat: ZIB-911.

Publicatieversie 2.0 (10-06-2022)

Bevat: ZIB-1724, ZIB-1740.

Publicatieversie 2.0.1 (15-10-2023)

Bevat: ZIB-1896, ZIB-1974.

Publicatieversie 3.0 (15-04-2024)

Bevat: ZIB-815, ZIB-2154, ZIB-2206, ZIB-2207, ZIB-2208, ZIB-2209, ZIB-2132, ZIB-2134, ZIB-2135.

1.2 Concept

Medication administration is the registration of the individual administrations of the medicine on the patient by the administrator (e.g. a nurse or patient themselves), in relation to the entered agreements. Only actually administered medication can be described with this HCIM.

1.3 Mindmap

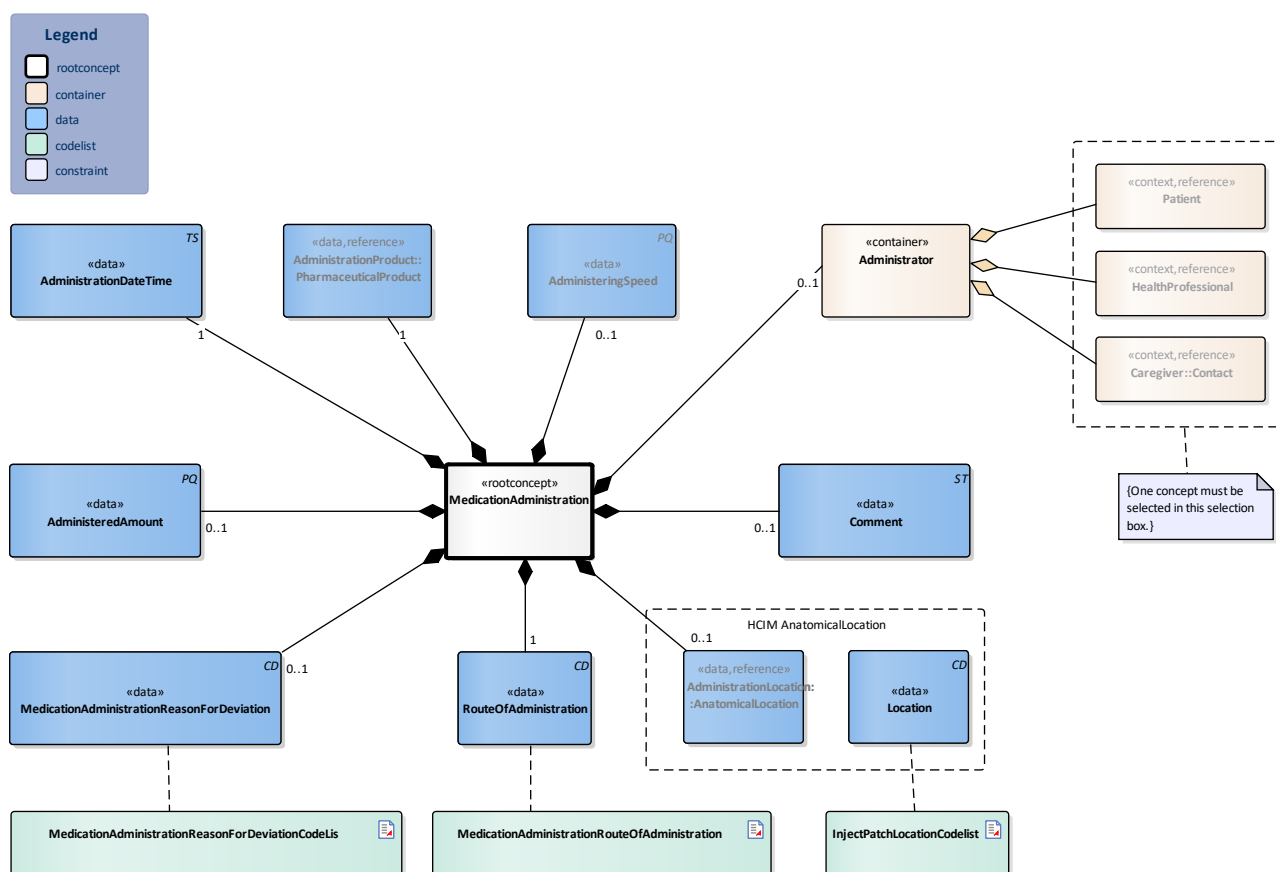
1.4 Purpose

The goal of administering the medication is to provide insight into the actual administered products.

1.5 Patient Population

1.6 Evidence Base

1.7 Information Model



«rootconcept»	MedicationAdministration	
Definitie	Root concept of the MedicationAdministration information model. This root concept contains all data elements of the MedicationAdministration information model.	
Datatype		
DCM::ConceptId	NL-CM:9.13.20928	
DCM::DefinitionCode	SNOMED CT: 18629005 Administration of drug or medicament	
Opties		

«data»	AdministrationProduct::PharmaceuticalProduct
Definitie	The product taken or administered. This is usually medication. Food, blood products, aids and bandages do not strictly fall under the category of

	<p>medication, but can be reported as well.</p> <p>In principle, this will be the prescribed product, but the administrator may substitute it by replacing the product with an equivalent product. For example: two 50mg tablets can be administered instead of one 100mg tablet.</p>	
Datatype		
DCM::ConceptId	NL-CM:9.13.20929	
DCM::ReferencedConceptId	NL-CM:9.7.19926	This is a reference to the rootconcept of information model PharmaceuticalProduct.
Opties		

«data»	AdministeringSpeed	
Definitie	<p>The administering speed is used in slow administration of liquid. In practice, the measuring unit is almost always ml/hour. Entering an interval (such as 0-10 ml/hour) is also a commonly used option.</p> <p>For example, with an administering speed of 10ml/hour:</p> <ul style="list-style-type: none"> • amount = 10, • dose unit = ml • time unit = hour <p>Optionally a translation to NHG table Gebruiksvoorschriften(Table 25) is also allowed.</p>	
Datatype	PQ	
DCM::ConceptId	NL-CM:9.13.23159	
DCM::ExampleValue	Aantal= 10 Gebruikseenheid= ml Tijdseenheid= uur	
Opties		

«data»	AdministrationDateTime	
Definitie	The date and time at which the medication was administered.	
Datatype	TS	
DCM::ConceptId	NL-CM:9.13.21193	
Opties		

«data»	AdministeredAmount	
Definitie	Amount of the administered product.	
Datatype	PQ	
DCM::ConceptId	NL-CM:9.13.21194	
Opties		

«data»	RouteOfAdministration	
Definitie	The route through which the medication is administered (oral, nasal, intravenous,...).	
Datatype	CD	
DCM::ConceptId	NL-CM:9.13.21195	
DCM::DefinitionCode	SNOMED CT: 410675002 Route of administration	
DCM::ValueSet	MedicationAdministrationRouteOfAdministration	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.13.2
Opties		

«data»	AdministrationLocation::AnatomicalLocation	
Definitie	Location on or in the body where the medication was administered. Usually	

	used to indicate the location at which a patient was administered an injection or patch was applied. The value list PrikPlakLocationCodelijst list can serve as a starting point for coding these concepts. If both the anatomical location and administration route are filled, they should be aligned.	
Datatype		
DCM::ConceptId	NL-CM:9.13.23381	
DCM::ReferencedConceptId	NL-CM:20.7.1	This is a reference to the rootconcept of information model AnatomicalLocation.
Opties		

«data»	Location	
Definitie	Location from AnatomicalLocation.	
Datatype	CD	
DCM::ConceptId	NL-CM:20.7.4	
DCM::ValueSet	InjectPatchLocationCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.13.4
Opties		

«container»	Administrator	
Definitie	Container of the Administrator concept. This container contains all data elements of the Administrator concept. The concept describes the person who administered the product. This is a professional authorised administrator, the patient themselves or the caregiver, for example.	
Datatype		
DCM::ConceptId	NL-CM:9.13.21196	
Opties		

«context»	Patient	
Definitie	If the patient administered the medication themselves, indicate that here. If the medication is administered by a health professional or caregiver/family member/etc., the health professional is entered in the 'HealthProfessional' element or the caregiver/family member/etc. is entered in the 'Contact' element respectively.	
Datatype		
DCM::ConceptId	NL-CM:9.13.23380	
DCM::ReferencedConceptId	NL-CM:0.1.1	This is a reference to the rootconcept of information model Patient.
Opties		

«context»	HealthProfessional	
Definitie	The concept describes the person who administered the product. This is a professional authorised administrator.	
Datatype		
DCM::ConceptId	NL-CM:9.13.23172	
DCM::ReferencedConceptId	NL-CM:17.1.1	This is a reference to the rootconcept of information model HealthProfessional.
Opties		

«context»	Caregiver::Contact	
Definitie	Information on the patient's personal relative or contact that administered the medication.	
Datatype		
DCM::ConceptId	NL-CM:9.13.23355	

DCM::ReferencedConceptId	NL-CM:3.1.1	This is a reference to the rootconcept of information model ContactPerson.
Opties		

«data»	MedicationAdministrationReasonForDeviation	
Definitie	Reason why the medication was not taken or administered or was taken or administered differently. Here, you can choose to enter text or one of the codes.	
Datatype	CD	
DCM::ConceptId	NL-CM:9.13.23166	
DCM::DefinitionCode	SNOMED CT: 153631000146105 Reason for deviation in administration of drug or medicament	
DCM::ValueSet	MedicationAdministrationReasonForDeviationCodeList	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.13.3
Opties		

«data»	Comment	
Definitie	Comments on administering the medication.	
Datatype	ST	
DCM::ConceptId	NL-CM:9.13.21337	
DCM::DefinitionCode	LOINC: 48767-8 Annotation comment	
Opties		

«document»	InjectPatchLocationCodelist	
Definitie		
Datatype		
DCM::ValueSetBinding	Extensible	
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.60.40.2.9.13.4	
DCM::ValueSetIncludeOTH	True	
DCM::ValueSetStatus	Active	
HCIM::ValueSetLanguage	--	
Opties		

PrikPlakLocatieCodelijst			OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.13.4	
Concept Name	Concept Code	Coding Syst. Name	Coding System OID	Description
Structure of upper part of lumbar region of abdominal wall	160531000146108	SNOMED CT	2.16.840.1.113883.6.96	structuur van bovenste gedeelte van lumbale regio van wand van abdomen
Structure of lower part of lumbar region of abdominal wall	160481000146106	SNOMED CT	2.16.840.1.113883.6.96	structuur van onderste gedeelte van lumbale regio van wand van abdomen
Structure of right part of supraumbilical region	160501000146103	SNOMED CT	2.16.840.1.113883.6.96	structuur van rechter gedeelte van supra-umbilicale regio
Structure of left part of infra-umbilical region	160441000146104	SNOMED CT	2.16.840.1.113883.6.96	structuur van linker gedeelte van infra-umbilicale regio

Structure of left part of supraumbilical region	160451000146101	SNOMED CT	2.16.840.1.113883.6.96	structuur van linker gedeelte van supra-umbilicale regio
Structure of right part of infra-umbilical region	160491000146108	SNOMED CT	2.16.840.1.113883.6.96	structuur van rechter gedeelte van infra-umbilicale regio
Structure of soft tissue of upper outer quadrant of anterior surface of thigh	160521000146106	SNOMED CT	2.16.840.1.113883.6.96	structuur van weke delen van laterale bovenkwadrant van anterieur oppervlak van bovenbeen
Structure of soft tissue of upper inner quadrant of anterior surface of thigh	160511000146101	SNOMED CT	2.16.840.1.113883.6.96	structuur van weke delen van mediale bovenkwadrant van anterieur oppervlak van bovenbeen
Structure of soft tissue of lower outer quadrant of anterior surface of thigh	160471000146109	SNOMED CT	2.16.840.1.113883.6.96	structuur van weke delen van laterale onderkwadrant van anterieur oppervlak van bovenbeen
Structure of soft tissue of lower inner quadrant of anterior surface of thigh	160461000146103	SNOMED CT	2.16.840.1.113883.6.96	structuur van weke delen van mediale onderkwadrant van anterieur oppervlak van bovenbeen
Structure of upper outer quadrant of buttock	703712000	SNOMED CT	2.16.840.1.113883.6.96	structuur van laterale bovenkwadrant van regio glutealis
Structure of upper inner quadrant of buttock	160541000146100	SNOMED CT	2.16.840.1.113883.6.96	structuur van mediale bovenkwadrant van regio glutealis
Structure of lower outer quadrant of buttock	160431000146107	SNOMED CT	2.16.840.1.113883.6.96	structuur van laterale onderkwadrant van regio glutealis
Structure of lower inner quadrant of buttock	160421000146105	SNOMED CT	2.16.840.1.113883.6.96	structuur van mediale onderkwadrant van regio glutealis
Skin structure of clavicular region	91009005	SNOMED CT	2.16.840.1.113883.6.96	structuur van huid van regio clavicularis
Skin structure of left part of back of upper thoracic region	160371000146104	SNOMED CT	2.16.840.1.113883.6.96	structuur van huid van linker gedeelte van achterzijde van bovenste gedeelte van thoracale regio
Skin structure left part of back of upper thoracic region	160391000146100	SNOMED CT	2.16.840.1.113883.6.96	structuur van huid van rechter gedeelte van achterzijde van bovenste gedeelte van thoracale regio
Skin structure of left part of back of lower thoracic region	160361000146105	SNOMED CT	2.16.840.1.113883.6.96	structuur van huid van linker gedeelte van achterzijde van onderste gedeelte van thoracale regio
Skin structure of right part of back of lower thoracic region	160381000146102	SNOMED CT	2.16.840.1.113883.6.96	structuur van huid van rechter gedeelte van achterzijde van onderste gedeelte van thoracale regio

Skin structure of left part of lumbosacral region	160401000146102	SNOMED CT	2.16.840.1.113883.6.96	structuur van huid van linker gedeelte van lumbosacrale regio
Skin structure of right part of lumbosacral region	160411000146100	SNOMED CT	2.16.840.1.113883.6.96	structuur van huid van rechter gedeelte van lumbosacrale regio
Skin structure of anterior surface of upper arm	45981001	SNOMED CT	2.16.840.1.113883.6.96	structuur van huid van anterieur oppervlak van bovenarm
Structure of posterior surface of upper arm	15703000	SNOMED CT	2.16.840.1.113883.6.96	structuur van posterieur oppervlak van bovenarm
Structure of deltoid muscle	35259002	SNOMED CT	2.16.840.1.113883.6.96	structuur van musculus deltoideus
Skin structure of right upper quadrant of anterior surface of thorax	160561000146104	SNOMED CT	2.16.840.1.113883.6.96	structuur van huid van rechter bovenkwadrant van voorzijde van thorax
Skin structure of left upper quadrant of anterior surface of thorax	160551000146102	SNOMED CT	2.16.840.1.113883.6.96	structuur van huid van linker bovenkwadrant van voorzijde van thorax
Skin structure of right lower quadrant of anterior surface of thorax	160581000146107	SNOMED CT	2.16.840.1.113883.6.96	structuur van huid van rechter onderkwadrant van voorzijde van thorax
Skin structure of left lower quadrant of anterior surface of thorax	160571000146105	SNOMED CT	2.16.840.1.113883.6.96	structuur van huid van linker onderkwadrant van voorzijde van thorax
Skin structure of scapular region of back	45980000	SNOMED CT	2.16.840.1.113883.6.96	structuur van huid van regio scapularis
Skin structure of postauricular region	24483006	SNOMED CT	2.16.840.1.113883.6.96	structuur van huid van postauriculaire regio

«document»		MedicationAdministrationRouteOfAdministration	
Definitie			
Datatype			
DCM::ValueSetBinding	Extensible		
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.60.40.2.9.13.2		
DCM::ValueSetIncludeOTH	True		
DCM::ValueSetStatus	Active		
HCIM::ValueSetLanguage	--		
Opties			
MedicatieToedieningToedieningswegCodelijst		OID:	2.16.840.1.113883.2.4.3.11.60.40.2.9.13.2
Codes	Coding Syst. Name	Coding System OID	
Alle waarden	G-Standaard Toedieningsweg	2.16.840.1.113883.2.4.4.9	

«document»	MedicationAdministrationReasonForDeviationC
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Definitie					
Datatype					
DCM::ValueSetBinding		Extensible			
DCM::ValueSetId		2.16.840.1.113883.2.4.3.11.60.40.2.9.13.3			
DCM::ValueSetIncludeOTH		True			
DCM::ValueSetStatus		Active			
HCIM::ValueSetLanguage		EN			
Opties					
MedicatietoedieningRedenVanAfwijkenCodelijst				OID: 2.16.840.1.113883.2.4.3.11.60.40.2.9.13.3	
Concept Name	Concept Code	Coding Syst. Name	Coding System OID	Description	
Product discontinued	DISCONT	ActReason	2.16.840.1.113883.5.8	Product niet meer leverbaar [DEPRECATED]	
Patient not available	NON-AVAIL	ActReason	2.16.840.1.113883.5.8	Patiënt niet beschikbaar [DEPRECATED]	
Patient refuse	PREFUS	ActReason	2.16.840.1.113883.5.8	Patiënt heeft geweigerd [DEPRECATED]	
Unable to use	UNABLE	ActReason	2.16.840.1.113883.5.8	Toediening volgens voorschrift niet mogelijk [DEPRECATED]	
Order aborted	FOABORT	ActReason	2.16.840.1.113883.5.8	Medicatieafpraak is gestopt [DEPRECATED]	
Vergeten toe te dienen	FORGOT	NL-CM-CS	2.16.840.1.113883.2.4.3.11.60.40.4	Vergeten toe te dienen [DEPRECATED]	
Toediener niet beschikbaar	APNA	NL-CM-CS	2.16.840.1.113883.2.4.3.11.60.40.4	Toediener niet aanwezig [DEPRECATED]	
Onvoldoende medicatie op voorraad	705046008	SNOMED CT	2.16.840.1.113883.6.96	Product niet meer leverbaar	
Behandeling met geneesmiddel stopgezet	274512008	SNOMED CT	2.16.840.1.113883.6.96	Medicatieafpraak is gestopt	
Medicatie uitgespuugd door patiënt	152741000146103	SNOMED CT	2.16.840.1.113883.6.96	Uitgespuugd door patiënt	
Zorgverlener niet beschikbaar om medicatie toe te dienen	153221000146105	SNOMED CT	2.16.840.1.113883.6.96	Toediener niet aanwezig	
Zorgverlener vergeten medicatie toe te dienen	153211000146100	SNOMED CT	2.16.840.1.113883.6.96	Vergeten toe te dienen	
Niet in staat om medicatie te gebruiken	408366001	SNOMED CT	2.16.840.1.113883.6.96	Toediening volgens voorschrift niet mogelijk	
Toediening van medicatie geweigerd	406149000	SNOMED CT	2.16.840.1.113883.6.96	Patiënt heeft geweigerd	
Zorgafnemer niet beschikbaar om medicatie in ontvangst te nemen	153241000146104	SNOMED CT	2.16.840.1.113883.6.96	Patiënt niet beschikbaar	

Foutieve registratie van medicatie	159691000146109	SNOMED CT	2.16.840.1.113883.6.96	Foutieve registratie van medicatie
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	Legend
Definitie	
Datatype	
Opties	

	Constraint
Definitie	One concept must be selected in this selection box.
Datatype	
Opties	

1.8 Example Instances

MedicatieToedieningDatumTijd	Toedieningsproduct	Afwijkende Toediening	MedicatieToedieningStatus	Toedieningsweg	Toegediende Hoeveelheid	Afgesproken DatumTijd	MedicatieToedieningRedenVanAfwijken	MedicatieAfspraak
	ProductCode							Gebruiksaanwijzing Doseerinstructie Dosering Keerdosis
3-6-2014 16:19:07	Pantoprazol mylan tablet msr 20mg	Nee	Gereed	Oraal	1 stuk			
11-9-2012 17:21:00	Bumetanide pch tablet 2 mg	Ja	Afgebroken	Oraal	1 stuk		Patiënt heeft geweigerd	2 stuks
19-9-2014 14:12:11	Novorapid Flexpen Injvst 100e/MI Pen 3ml	Ja	Uitgesteld	Subcutaan	22 eenheden	19-9-2014 9:00:00	Vergeten toe te dienen	22 elementen

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

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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