

Health & Care Information Model:

nl.zorg.BloodPressure-v5.0

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1. nl.zorg.BloodPressure-v5.0

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HCIM::PublicationLanguage	EN

1.1 Revision History

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Publicatieversie 1.1 (01-07-2013)

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Bevat: ZIB-135, ZIB-136, ZIB-137, ZIB-148, ZIB-169, ZIB-218, ZIB-219, ZIB-220, ZIB-308, ZIB-315, ZIB-362, ZIB-363.

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Publicatieversie 3.0 (01-05-2016)

Bevat: ZIB-453.

Publicatieversie 3.1 (04-09-2017)

Bevat: ZIB-431, ZIB-552, ZIB-564, ZIB-571.

Publicatieversie 3.2 (31-01-2020)

Bevat: ZIB-846.

Publicatieversie 3.2.1 (01-09-2020)

Bevat: ZIB-962.

Publicatieversie 4.0 (15-10-2023)

Bevat: ZIB-1731, ZIB-1813

1.2 Concept

The arterial blood pressure is a parameter for determining the condition of the mmHg blood circulation and is expressed in systolic and diastolic pressure in .

1.3 Mindmap

1.4 Purpose

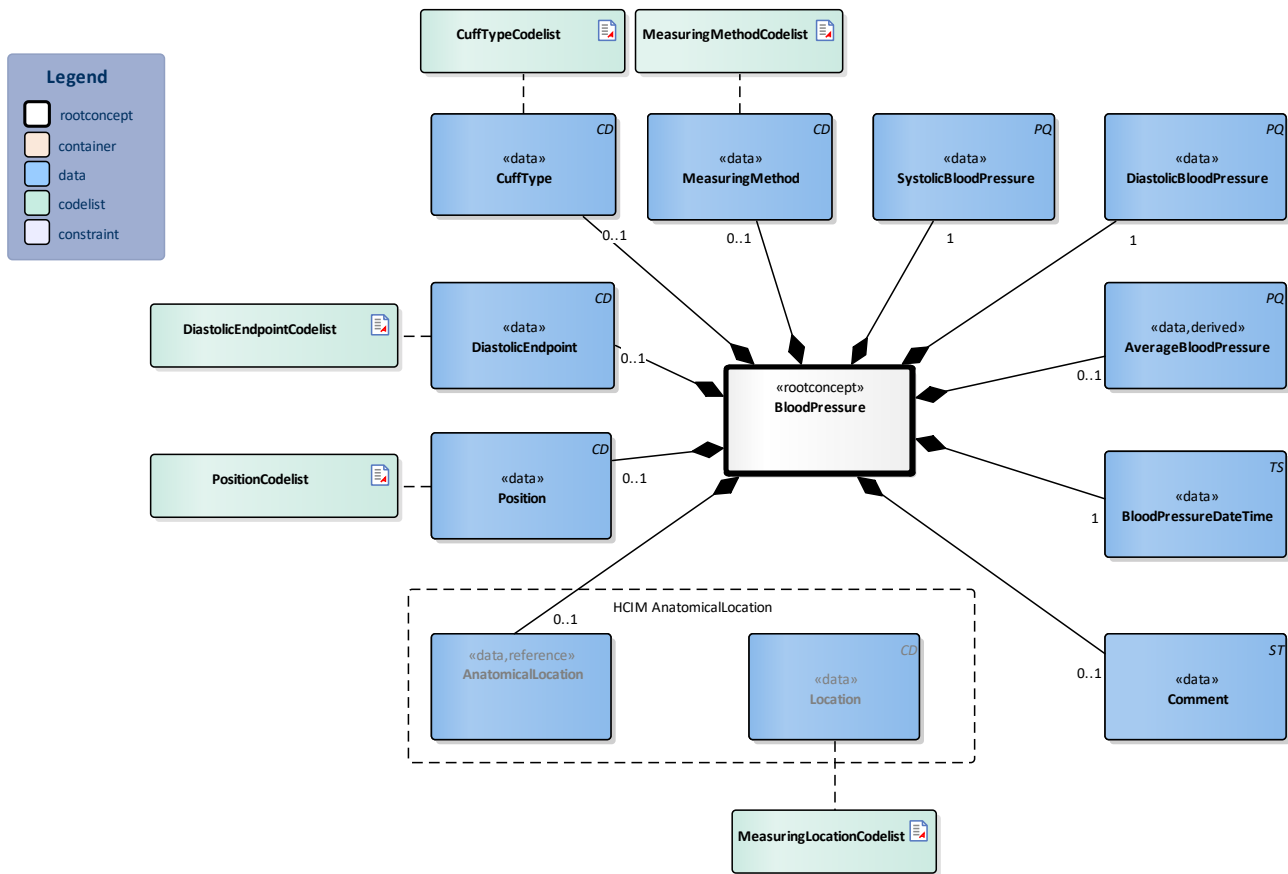
Blood pressure is measured to gain an indication of the health condition of the patient's cardiovascular system.

1.5 Patient Population

1.6 Evidence Base

The local measurement of the arterial blood pressure, which acts as a surrogate for the arterial pressure in the systematic circulation. In most cases, the term 'blood pressure' refers to the measurement of blood pressure of the arteria brachialis in the upper arm with the cuff using the Riva-Rocci method. The protocol for this measurement comprises many details that are not general knowledge (such as the correct way to interpret Korotkoff sounds) or carried out correctly (adjusting the cuff width to a very large or small diameter of the upper arm, the right rate of descent of the mercury column, cut-off values for cardiac arrhythmias).

1.7 Information Model



«rootconcept»	BloodPressure	
Definitie	Root concept of the BloodPressure information model. This root concept contains all data elements of the BloodPressure information model.	
Datatype		
DCM::ConceptId	NL-CM:12.4.1	
DCM::DefinitionCode	LOINC: 85354-9 Blood pressure panel	
DCM::DefinitionCode	SNOMED CT: 46973005 Blood pressure taking	
Opties		

«data»	CuffType	
Definitie	The size of the cuff used in the measurement.	
Datatype	CD	
DCM::ConceptId	NL-CM:12.4.9	
DCM::DefinitionCode	SNOMED CT: 70665002 blood pressure cuff	
DCM::ValueSet	CuffTypeCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.3
Opties		

«data»	MeasuringMethod	
Definitie	The type of method used to measure blood pressure.	
Datatype	CD	
DCM::ConceptId	NL-CM:12.4.7	
DCM::ValueSet	MeasuringMethodCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.1
Opties		

«data»	SystolicBloodPressure	
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Definitie	The highest (peak) systematic arterial blood pressure - measured in the contraction stage or systole of the cardiac cycle.	
Datatype	PQ	
DCM::ConceptId	NL-CM:12.4.2	
DCM::DefinitionCode	LOINC: 8480-6 Systolic blood pressure	
DCM::ExampleValue	155 mmHg	
Opties		

«data»	DiastolicBloodPressure	
Definitie	The lowest systematic arterial blood pressure - measured in the relaxation stage or diastole of the cardiac cycle.	
Datatype	PQ	
DCM::ConceptId	NL-CM:12.4.3	
DCM::DefinitionCode	LOINC: 8462-4 Diastolic blood pressure	
DCM::ExampleValue	70 mmHg	
Opties		

«data»	AverageBloodPressure	
Definitie	Average blood pressure during one cycle of the heart contracting and relaxing. Estimated based on systolic and diastolic blood pressure. This estimate is unreliable in cases of circulatory disorders. This value can only be reliably determined when invasive blood pressure is measured.	
Datatype	PQ	
DCM::ConceptId	NL-CM:12.4.4	
DCM::DefinitionCode	SNOMED CT: 6797001 mean arterial pressure	
Opties		

«data»	BloodPressureDateTime	
Definitie	The date and time at which these blood pressure values were measured.	
Datatype	TS	
DCM::ConceptId	NL-CM:12.4.5	
Opties		

«data»	Comment	
Definitie	Comments on the measured blood pressure. Here, an explanation could be given, for example, of circumstances that may have influenced the patient's blood pressure, such as pain, stress, exertion and sleep/wake cycles.	
Datatype	ST	
DCM::ConceptId	NL-CM:12.4.6	
DCM::DefinitionCode	LOINC: 48767-8 Annotation comment	
Opties		

«data»	AnatomicalLocation	
Definitie	Anatomical location where the blood pressure was measured.	
Datatype		
DCM::ConceptId	NL-CM:12.4.12	
DCM::ReferencedConceptId	NL-CM:20.7.1	This is a reference to the rootconcept of information model AnatomicalLocation.
Opties		

«data»	Location	
Definitie	Localisation on/in the body.	
Datatype	CD	
DCM::ConceptId	NL-CM:20.7.4	
DCM::ValueSet	MeasuringLocationCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.4
Opties		

«data»	Position	
Definitie	The position of the patient when the blood pressure was measured.	
Datatype	CD	
DCM::ConceptId	NL-CM:12.4.11	
DCM::ExampleValue	Zittend	
DCM::ValueSet	PositionCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.5
Opties		

«data»	DiastolicEndpoint	
Definitie	Registration of the Korotkoff sound used to measure diastolic pressure with the auscultatory method.	
Datatype	CD	
DCM::ConceptId	NL-CM:12.4.8	
DCM::DefinitionCode	SNOMED CT: 85549003 Korotkoff sound	
DCM::ValueSet	DiastolicEndpointCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.2
Opties		

«document»	DiastolicEndpointCodelist	
Definitie		
Datatype		
DCM::ValueSetBinding	Required	
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.6 0.40.2.12.4.2	
HCIM::ValueSetLanguage	--	
Opties		

DiastolischEindpuntCodelijst			OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.2	
Concept Name	Concept Code	Coding Syst. Name	Coding System OID	Description
Phase 4	255271000	SNOMED CT	2.16.840.1.113883.6.96	Fase IV
Phase 5	255272007	SNOMED CT	2.16.840.1.113883.6.96	Fase V
Other	OTH	NullFlavor	2.16.840.1.113883.5.1008	Anders

«document»	CuffTypeCodelist	
Definitie		
Datatype		
DCM::ValueSetBinding	Required	
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.6 0.40.2.12.4.3	
HCIM::ValueSetLanguage	NL	
Opties		

ManchetTypeCodelijst			OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.3	
Concept Name	Concept Code	Coding Syst. Name	Coding System OID	Description
Standaard	STD	ManchetType	2.16.840.1.113883.2.4.3.11.60.40.4.15.1	Standaard (Standaard manchet voor een volwassene (manchet 16x30 cm))
Groot	L	ManchetType	2.16.840.1.113883.2.4.3.11.60.40.4.15.1	Groot (Een manchet voor een volwassene met een armomtrek van 35 tot 44 cm (manchet 16x36 cm))
Klein	S	ManchetType	2.16.840.1.113883.2.4.3.11.60.40.4.15.1	Klein (Een manchet voor een volwassene met een armomtrek van 22 tot 26 cm (manchet 12x22 cm))
Extra groot	XL	ManchetType	2.16.840.1.113883.2.4.3.11.60.40.4.15.1	Extra groot (Een manchet voor het dijbeen of arm wanneer de armomtrek 45 tot 52 cm is (manchet 16x42 cm))
Kind	KIND	ManchetType	2.16.840.1.113883.2.4.3.11.60.40.4.15.1	Maat voor kind (Een manchet voor kinderen of voor volwassenen met een dunne arm (manchet ca. 8x21 cm))
Jong kind	JONGKIND	ManchetType	2.16.840.1.113883.2.4.3.11.60.40.4.15.1	Maat voor jong kind (Een manchet voor jonge kinderen (manchet ca. 5x15 cm))
Neonaat	NEONAAT	ManchetType	2.16.840.1.113883.2.4.3.11.60.40.4.15.1	Maat voor neonaat (Een manchet voor neonaten (manchet ca. 3x6 cm))
Other	OTH	NullFlavor	2.16.840.1.113883.5.1008	Anders

«document»	PositionCodelist	
Definitie		
Datatype		
DCM::ValueSetBinding	Extensible	
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.60.40.2.12.4.5	
HCIM::ValueSetLanguage	--	
Opties		

HoudingCodelijst			OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.5	
Concept Name	Concept Code	Coding Syst. Name	Coding System OID	Description
Orthostatic body position	10904000	SNOMED CT	2.16.840.1.113883.6.96	Staande positie
Recumbent body position	102538003	SNOMED CT	2.16.840.1.113883.6.96	Liggende positie
Sitting position	33586001	SNOMED CT	2.16.840.1.113883.6.96	Zittende positie
Position with tilt	272587006	SNOMED CT	2.16.840.1.113883.6.96	Achteroverleunende positie
Trendelenburg position	34106002	SNOMED CT	2.16.840.1.113883.6.96	Trendelenburgligging

«document»	MeasuringMethodCodelist
Definitie	
Datatype	

DCM::ValueSetBinding	Extensible			
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.6 0.40.2.12.4.1			
HCIM::ValueSetLanguage	--			
Opties				
MeetmethodeCodelijst			OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.1	
Concept Name	Concept Code	Coding Syst. Name	Coding System OID	Description
Non-invasief	22762002	SNOMED CT	2.16.840.1.113883.6.96	Niet-invasief [DEPRECATED]
Bloeddrukmeting met gebruikmaking van manchets	371911009	SNOMED CT	2.16.840.1.113883.6.96	Niet-invasief (met manchets) [DEPRECATED]
Bloeddrukmeting met automatische bloeddrukmeter	95691000146106	SNOMED CT	2.16.840.1.113883.6.96	Niet-invasief (met automatische bloeddrukmeter) [DEPRECATED]
Invasief	10179008	SNOMED CT	2.16.840.1.113883.6.96	Invasief [DEPRECATED]
Invasief meten van arteriële bloeddruk	99041000146109	SNOMED CT	2.16.840.1.113883.6.96	Invasief meten van arteriële bloeddruk
Blood pressure measurement using manual blood pressure device with auscultation	360671000146103	SNOMED CT	2.16.840.1.113883.6.96	Handmatige bloeddrukmeting met auscultatie
Blood pressure measurement using automated blood pressure device	360661000146109	SNOMED CT	2.16.840.1.113883.6.96	Automatische bloeddrukmeting

«document»	MeasuringLocationCodelist			
Definitie				
Datatype				
DCM::ValueSetBinding	Extensible			
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.6 0.40.2.12.4.4			
HCIM::ValueSetLanguage	--			
Opties				
MeetLocatieCodelijst			OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.4	
Concept Name	Concept Code	Coding Syst. Name	Coding System OID	Description
Upper arm structure	40983000	SNOMED CT	2.16.840.1.113883.6.96	Bovenarm
Right upper arm structure	368209003	SNOMED CT	2.16.840.1.113883.6.96	Rechter bovenarm [DEPRECATED]
Left upper arm structure	368208006	SNOMED CT	2.16.840.1.113883.6.96	Linker bovenarm [DEPRECATED]
Thigh structure	68367000	SNOMED CT	2.16.840.1.113883.6.96	Bovenbeen
Structure of right thigh	11207009	SNOMED CT	2.16.840.1.113883.6.96	Rechter bovenbeen [DEPRECATED]
Structure of left thigh	61396006	SNOMED CT	2.16.840.1.113883.6.96	Linker bovenbeen [DEPRECATED]
Wrist region structure	8205005	SNOMED CT	2.16.840.1.113883.6.96	Pol
Structure of right wrist	9736006	SNOMED CT	2.16.840.1.113883.6.96	Rechterpol [DEPRECATED]

Structure of left wrist	5951000	SNOMED CT	2.16.840.1.113883.6.96	Linkerpols [DEPRECATED]
Finger structure	7569003	SNOMED CT	2.16.840.1.113883.6.96	Vinger [DEPRECATED]
Ankle region structure	344001	SNOMED CT	2.16.840.1.113883.6.96	Enkel
Structure of right ankle	6685009	SNOMED CT	2.16.840.1.113883.6.96	Rechterenkel [DEPRECATED]
Structure of left ankle	51636004	SNOMED CT	2.16.840.1.113883.6.96	Linkerenkel [DEPRECATED]
Digit of hand structure	125685002	SNOMED CT	2.16.840.1.113883.6.96	Vinger (inclusief duim)
Lower leg structure	30021000	SNOMED CT	2.16.840.1.113883.6.96	Onderbeen

Legend	
Definitie	
Datatype	
Opties	

1.8 Example Instances

							Anatomischelocatie	
Bloeddruk	Systolische	Diastolische	Manchet	Laterali	Locatie	Toelicht		
DatumTijd	Bloeddruk	Bloeddruk	Houding	type	eit	ng		
08-02-2013 6:43	125 mmHg	75 mmHg	Liggende positie	standaard	rechts	bovenarm		

							Anatomischelocatie	
Bloeddruk	Systolische	Diastolische	Manchet	Laterali	Locatie	Toelicht		
DatumTijd	Bloeddruk	Bloeddruk	Houding	type	eit	ng		
07-02-2013	108 mmHg	56 mmHg	Zittende positie	groot	links	pols	Mu. is	zwanger

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. Parelsnoer DCM Bloeddruk v0.9 [Online] Beschikbaar op:
<http://www.nictiz.nl/uploaded/FILES/htmlcontent/dcm/parelsnoer/Bloeddruk%20v0.9.pdf> [Geraadpleegd: 23 februari 2015].

2. openEHR-EHR-OBSERVATION.blood_pressure.v1 [Online] Beschikbaar op:
<http://www.openehr.org/knowledge/> [Geraadpleegd: 23 februari 2015].

1.16 Functional Model

1.17 Traceability to other Standards

This health and care information model is in accordance with the information model template Measurement v1.0.

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