

# **Health & Care Information Model:**

**nl.zorg.HeartRate-v3.4.1**

Status: Final

Release status: Prepublished

# Content

<b>1. nl.zorg.HeartRate-v3.4.1 .....</b>	<b>3</b>
1.1 Revision History.....	3
1.2 Concept .....	4
1.3 Mindmap .....	4
1.4 Purpose.....	4
1.5 Patient Population .....	4
1.6 Evidence Base .....	4
1.7 Information Model .....	4
1.8 Example Instances.....	7
1.9 Instructions.....	7
1.10 Interpretation.....	7
1.11 Care Process .....	7
1.12 Example of the Instrument .....	7
1.13 Constraints.....	7
1.14 Issues.....	7
1.15 References .....	7
1.16 Functional Model .....	7
1.17 Traceability to other Standards.....	8
1.18 Disclaimer .....	8
1.19 Terms of Use .....	8
1.20 Copyrights .....	8

# 1. nl.zorg.HeartRate-v3.4.1

DCM::CoderList	Kerngroep Registratie aan de Bron
DCM::ContactInformation.Address	*
DCM::ContactInformation.Name	*
DCM::ContactInformation.Telecom	*
DCM::ContentAuthorList	Projectgroep Generieke Overdrachtsgegevens & Kerngroep Registratie aan de Bron
DCM::CreationDate	29-11-2012
DCM::DeprecatedDate	
DCM::DescriptionLanguage	nl
DCM::EndorsingAuthority.Address	
DCM::EndorsingAuthority.Name	PM
DCM::EndorsingAuthority.Telecom	
DCM::Id	2.16.840.1.113883.2.4.3.11.60.40.3.12.3
DCM::KeywordList	hartfrequentie, vitale parameters, hartslag
DCM::LifecycleStatus	Final
DCM::ModelerList	Kerngroep Registratie aan de Bron
DCM::Name	nl.zorg.Hartfrequentie
DCM::PublicationDate	15-10-2023
DCM::PublicationStatus	Prepublished
DCM::ReviewerList	Projectgroep Generieke Overdrachtsgegevens & Kerngroep Registratie aan de Bron
DCM::RevisionDate	17-11-2021
DCM::Supersedes	nl.zorg.Hartfrequentie-v3.4
DCM::Version	3.4.1
HCIM::PublicationLanguage	EN

## 1.1 Revision History

Publicatieversie 1.0 (15-02-2013)

Publicatieversie 1.1 (01-07-2013)

Publicatieversie 1.2 (01-04-2015)

Bevat: ZIB-141, ZIB-234, ZIB-308, ZIB-360.

Incl. algemene wijzigingsverzoeken:

ZIB-94, ZIB-154, ZIB-200, ZIB-201, ZIB-309, ZIB-324, ZIB-326.

Publicatieversie 3.0 (01-05-2016)

Bevat: ZIB-453.

Publicatieversie 3.1 (04-09-2017)

Bevat: ZIB-431, ZIB-549, ZIB-564.

Publicatieversie 3.2 (01-10-2018)

Bevat: ZIB-509.

Publicatieversie 3.3 (06-07-2019)

Bevat: ZIB-732.

Publicatieversie 3.4 (01-09-2020)

Bevat: ZIB-881.

Publicatieversie 3.4.1 (01-12-2021)

Bevat: ZIB-1575.

## 1.2 Concept

The heart rate is the number of heartbeats per minute.

## 1.3 Mindmap

## 1.4 Purpose

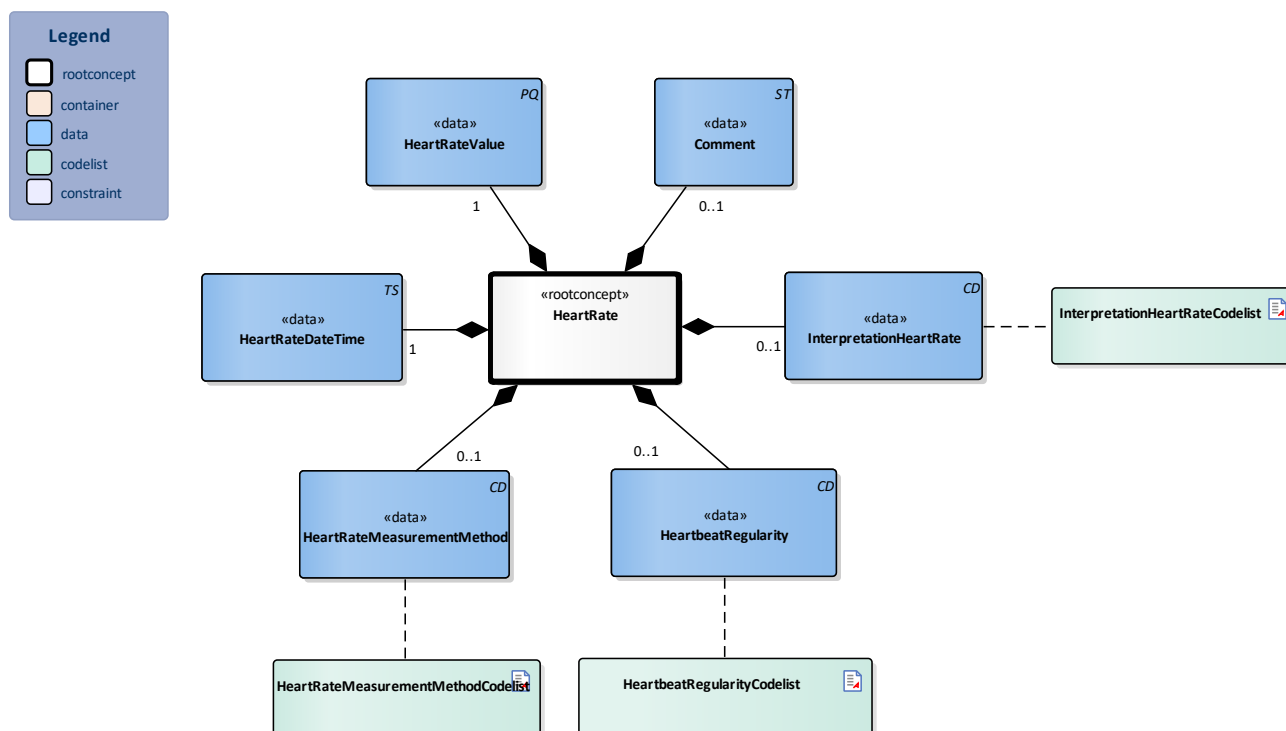
Obtaining information on circulation and heart function by measuring the heartrate.

## 1.5 Patient Population

## 1.6 Evidence Base

Heart rate (electric or auscultatory rhythm of the ventricles) and pulse rate (tangible output in the peripheral arteries) are physiologically different things, but produce the same values in normal circulation (beats per minute) and are therefore used interchangeably by many healthcare providers (and laymen). This is however incorrect, as a patient's pulse rate can be lower than their heart rate. Nevertheless, in daily practice, the pulse is usually palpated to measure heart rate and also written down as the heart rate. For this reason, the HeartRate information model, in addition to the PulseRate information model, offers the option to enter palpation as the HeartRateMeasurementMethod.

## 1.7 Information Model



«rootconcept»	HeartRate	
Definitie	Root concept of the HeartRate information model. This root concept contains all data elements of the HeartRate information model.	
Datatype		
DCM::ConceptId	NL-CM:12.3.1	

<b>DCM::DefinitionCode</b>	SNOMED CT: 106066004 Cardiac rhythm AND/OR rate finding	
<b>Opties</b>		

<b>«data»</b>	<b>HeartRateValue</b>	
<b>Definitie</b>	The heart rate measured as the number of heartbeats per minute.	
<b>Datatype</b>	PQ	
<b>DCM::ConceptId</b>	NL-CM:12.3.2	
<b>DCM::DefinitionCode</b>	SNOMED CT: 364075005 Heart rate	
<b>DCM::DefinitionCode</b>	LOINC: 8867-4 Heart rate	
<b>DCM::ExampleValue</b>	76/min	
<b>Opties</b>		

<b>«data»</b>	<b>HeartRateDateTime</b>	
<b>Definitie</b>	Date and time of the heart rate measurement.	
<b>Datatype</b>	TS	
<b>DCM::ConceptId</b>	NL-CM:12.3.4	
<b>Opties</b>		

<b>«data»</b>	<b>HeartRateMeasurementMethod</b>	
<b>Definitie</b>	The method used to count and observe the heart rate.	
<b>Datatype</b>	CD	
<b>DCM::ConceptId</b>	NL-CM:12.3.6	
<b>DCM::DefinitionCode</b>	SNOMED CT: 315306007 Examination by method	
<b>DCM::ValueSet</b>	HeartRateMeasurementMethodCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.3.2
<b>Opties</b>		

<b>«data»</b>	<b>Comment</b>	
<b>Definitie</b>	Comment on any problems or factors that may influence the measurement.	
<b>Datatype</b>	ST	
<b>DCM::ConceptId</b>	NL-CM:12.3.3	
<b>DCM::DefinitionCode</b>	LOINC: 48767-8 Annotation comment	
<b>Opties</b>		

<b>«data»</b>	<b>HeartbeatRegularity</b>	
<b>Definitie</b>	Regularity of the heartbeat.	
<b>Datatype</b>	CD	
<b>DCM::ConceptId</b>	NL-CM:12.3.5	
<b>DCM::DefinitionCode</b>	SNOMED CT: 301112006 Finding of heart rhythm	
<b>DCM::ValueSet</b>	HeartbeatRegularityCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.3.1
<b>Opties</b>		

<b>«data»</b>	<b>InterpretationHeartRate</b>	
<b>Definitie</b>	Interpretation heart rate	
<b>Datatype</b>	CD	
<b>DCM::ConceptId</b>	NL-CM:12.3.7	

DCM::DefinitionCode	SNOMED CT: 301113001 Finding of heart rate	
DCM::ValueSet	InterpretationHeartRateCodeList	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.3.3
Opties		

«document»		HeartRateMeasurementMethodCodeList		
Definitie				
Datatype				
DCM::ValueSetBinding		Extensible		
DCM::ValueSetId		2.16.840.1.113883.2.4.3.11.60.40.2.12.3.2		
HCIM::ValueSetLanguage		--		
Opties				
HartslagMeetMethodeCodelijst			OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.3.2	
Concept Name	Concept Code	Coding Syst. Name	Coding System OID	Description
Auscultation	37931006	SNOMED CT	2.16.840.1.113883.6.96	Auscultatie
Cardiac monitoring	88140007	SNOMED CT	2.16.840.1.113883.6.96	Cardiale monitoring
ECG	46825001	SNOMED CT	2.16.840.1.113883.6.96	Electrocardiografie

«document»		HeartbeatRegularityCodelist		
Definitie				
Datatype				
DCM::ValueSetBinding		Required		
DCM::ValueSetId		2.16.840.1.113883.2.4.3.11.60.40.2.12.3.1		
HCIM::ValueSetLanguage		--		
Opties				
HartslagRegelmatigheidCodelijst			OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.3.1	
Concept Name	Concept Code	Coding Syst. Name	Coding System OID	Description
Heart regular	271636001	SNOMED CT	2.16.840.1.113883.6.96	Hartslag regelmatig
Irregular heart beat	361137007	SNOMED CT	2.16.840.1.113883.6.96	Hartslag onregelmatig

«document»	InterpretationHeartRateCodeList			
Definitie				
Datatype				
DCM::ValueSetBinding	Extensible			
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.60.40.2.12.3.3			
HCIM::ValueSetLanguage	--			
Opties				
InterpretatieFrequentieCodelijst			OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.3.3	
Concept Name	Concept Code	Coding System Name	Coding System OID	Description
Bradycardia	48867003	SNOMED CT	2.16.840.1.113883.6.96	Bradycardie
Normal heart rate	76863003	SNOMED CT	2.16.840.1.113883.6.96	Normale hartfrequentie

Tachycardia	3424008	SNOMED CT	2.16.840.1.113883.6.96	Tachycardie
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	Legend
<b>Definitie</b>	
<b>Datatype</b>	
<b>Opties</b>	

## 1.8 Example Instances

Hartfrequentie DatumTijd	Hartfrequentie Waarde	Hartslag Methode	Hartslag Regelmatigheid	Toelichting
08-02-2013 6:43	126/min	Auscultatie	Hartslag onregelmatig	Misschien bigeminie?

## 1.9 Instructions

A Holter registration is a 24-hour ECG: an ECG with a very long measuring period.

## 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 Hartslag v0.98. [Online] Beschikbaar op: <http://www.nictiz.nl/uploaded/FILES/htmlcontent/dcm/parelsnoer/Hartslag%20v0.64.pdf> [Geraadpleegd: 19 februari 2015].
2. openEHR-EHR-OBSERVATION.heart\_rate.v1 [Online] Beschikbaar op: <http://www.openehr.org/knowledge/> [Geraadpleegd: 19 februari 2015].

## 1.16 Functional Model

## 1.17 Traceability to other Standards

## 1.18 Disclaimer

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