

# Health & Care Information Model:

## nl.zorg.O2Saturation-v4.0

Status: Final

Release: 2024

Release status: Prepublished

Managed by:



# Content

<b>1. nl.zorg.O2Saturation-v4.0</b> .....	<b>3</b>
1.1 Revision History.....	3
1.2 Concept .....	3
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.....	5
1.9 Instructions.....	6
1.10 Interpretation .....	6
1.11 Care Process .....	6
1.12 Example of the Instrument .....	6
1.13 Constraints.....	6
1.14 Issues .....	6
1.15 References .....	6
1.16 Functional Model .....	6
1.17 Traceability to other Standards.....	6
1.18 Disclaimer .....	6
1.19 Terms of Use .....	7
1.20 Copyrights.....	7

# 1. nl.zorg.O2Saturation-v4.0

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	2.16.840.1.113883.2.4.3.11.60.40.3.12.10
DCM::KeywordList	zuurstofsaturatie, vitale parameters, saturatie
DCM::LifecycleStatus	Final
DCM::ModelerList	Kerngroep Registratie aan de Bron
DCM::Name	nl.zorg.O2Saturation
DCM::PublicationDate	15-04-2024
DCM::PublicationStatus	Prepublished
DCM::ReviewerList	Projectgroep Generieke Overdrachtsgegevens & Kerngroep Registratie aan de Bron
DCM::RevisionDate	11-11-2021
DCM::Supersedes	nl.zorg.O2Saturation-v3.1
DCM::Version	4.0
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-308.

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-564.

Publicatieversie 4.0 (01-12-2021)

Bevat: ZIB-1217, ZIB-1476.

## 1.2 Concept

Arterial oxygen saturation, also referred to as saturation, is an indicator for the amount of oxygen bound to the hemoglobin in the red blood cells of the arteries. The measurement is usually carried out as a transcutaneous measurement with a blood oxygen monitor or pulse oximeter. The saturation level is expressed as a percentage and should be over 95% in healthy people.

## 1.3 Mindmap

## 1.4 Purpose

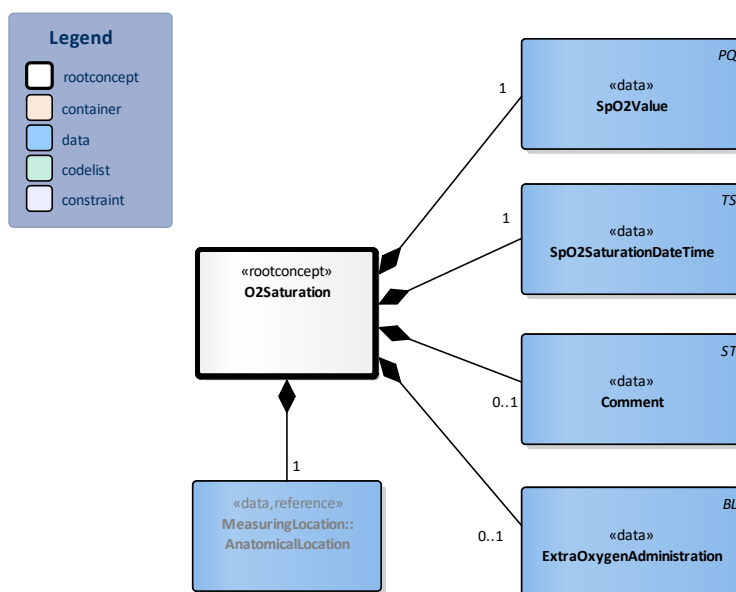
Measuring and monitoring oxygen saturation is done to monitor the oxygenation, or the amount of bound oxygen in the arterial blood.

This HCIM concerns the peripherally measured oxygen saturation (SpO2). For the oxygen saturation measured as a blood-gas measurement (SaO2), the HCIM LaboratoryTestResults must be used.

## 1.5 Patient Population

## 1.6 Evidence Base

## 1.7 Information Model



«rootconcept»	O2Saturation	
Definitie	Root concept of the O2Saturation information model. This root concept contains all data elements of the O2Saturation information model.	
Datatype		
DCM::ConceptId	NL-CM:12.10.1	
DCM::DefinitionCode	SNOMED CT: 250554003 Measurement of oxygen saturation at periphery	
Opties		

«data»	SpO2Value
Definitie	The element contains the value of the indirect, peripheral measured O2 saturation. The O2 saturation gives a percentage expressing the extent to which the blood's hemoglobin is saturated with oxygen, the ratio of oxygen-saturated hemoglobin to hemoglobin.

	The measurement is done in places where sufficient light can get through the skin, such as a finger, toe or earlobe.	
<b>Datatype</b>	PQ	
<b>DCM::ConceptId</b>	NL-CM:12.10.2	
<b>DCM::DefinitionCode</b>	LOINC: 59408-5 Oxygen saturation in Arterial blood by Pulse oximetry	
<b>DCM::DefinitionCode</b>	SNOMED CT: 431314004 Peripheral oxygen saturation	
<b>DCM::ExampleValue</b>	98 %	
<b>Opties</b>		

<b>«data»</b>	<b>SpO2SaturationDateTime</b>	
<b>Definitie</b>	The moment (date and time) of the SpO2 measurement.	
<b>Datatype</b>	TS	
<b>DCM::ConceptId</b>	NL-CM:12.10.3	
<b>Opties</b>		

<b>«data»</b>	<b>Comment</b>	
<b>Definitie</b>	Comment on the saturation measurement.	
<b>Datatype</b>	ST	
<b>DCM::ConceptId</b>	NL-CM:12.10.4	
<b>DCM::DefinitionCode</b>	LOINC: 48767-8 Annotation comment	
<b>DCM::ExampleValue</b>	Saturatie afhankelijk van O2 via mondkap	
<b>Opties</b>		

<b>«data»</b>	<b>ExtraOxygenAdministration</b>	
<b>Definitie</b>	Indication stating whether the measurement was done in a situation in which extra oxygen was administered.	
<b>Datatype</b>	BL	
<b>DCM::ConceptId</b>	NL-CM:12.10.5	
<b>DCM::DefinitionCode</b>	SNOMED CT: 266702001 Oxygen enrichment therapy	
<b>Opties</b>		

<b>«data»</b>	<b>MeasuringLocation::AnatomicalLocation</b>	
<b>Definitie</b>	Anatomical location where the SpO2 is measured.	
<b>Datatype</b>		
<b>DCM::ConceptId</b>	NL-CM:12.10.6	
<b>DCM::ReferencedConceptId</b>	NL-CM:20.7.1	This is a reference to the rootconcept of information model AnatomicalLocation.
<b>Opties</b>		

	<b>Legend</b>	
<b>Definitie</b>		
<b>Datatype</b>		
<b>Opties</b>		

## 1.8 Example Instances

O2SaturatieDatumTijd	SpO2Waarde	ExtraZuurstofToediening	Toelichting
08-02-2013 6:43	92%	Ja	Stijgt snel bij aanspreken

## 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. openEHR-EHR-OBSERVATION.indirect\_oximetry.v1[Online] Beschikbaar op: <http://www.openehr.org/knowledge/> [Geraadpleegd: 19 december 2014].

### 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.

### 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.

## **1.19 Terms of Use**

The user may use the Health and Care Information Models without limitations. The copyright provisions in the paragraph concerned apply to copying, distributing and passing on the Health and Care Information Models.

## **1.20 Copyrights**

A Health and Care Information Model qualifies as a work within the meaning of Section 10 of the Copyright Act (Auteurswet). Copyrights protect the Health and Care Information Models and these rights are owned by the cooperating parties.

The user may copy, distribute and pass on the information in this Health and Care Information Model under the conditions that apply for Creative Commons license Attribution-NonCommercial-ShareAlike 3.0 Netherlands (CC BY-NC-SA-3.0).

The content is available under Creative Commons Attribution-NonCommercial-ShareAlike 3.0 (see also <http://creativecommons.org/licenses/by-nc-sa/3.0/nl/>)

This does not apply to information from third parties that sometimes is used and / or referred to in a Health and Care Information Model, for example to an international medical terminology system. Any (copyright) rights that protect this information are not owned by the cooperating parties but by those third parties.

Nictiz is the independent national competence centre for electronic exchange of health and care information. The activities of Nictiz include the targeted development and management of information standards at the request of and in partnership with the stakeholders in healthcare. Nictiz advises these parties on all aspects of information exchange and identifies (future) national and international developments.

**Nictiz**

P.O. Box 19121  
2500 CC Den Haag  
Oude Middenweg 55  
2491 AC Den Haag

070-3173450  
[info@nictiz.nl](mailto:info@nictiz.nl)  
[www.nictiz.nl](http://www.nictiz.nl)



