

# Health & Care Information Model: nl.zorg.MUSTScore-v3.1

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# Content

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# 1. nl.zorg.MUSTScore-v3.1

DCM::CoderList	Werkgroep RadB Verpleegkundige Gegevens
DCM::ContactInformation.Address	*
DCM::ContactInformation.Name	*
DCM::ContactInformation.Telecom	*
DCM::ContentAuthorList	Werkgroep RadB Verpleegkundige Gegevens
DCM::CreationDate	12-2-2014
DCM::DeprecatedDate	
DCM::DescriptionLanguage	nl
DCM::EndorsingAuthority.Address	
DCM::EndorsingAuthority.Name	PM
DCM::EndorsingAuthority.Telecom	
DCM::Id	2.16.840.1.113883.2.4.3.11.60.40.3.4.5
DCM::KeywordList	Ondervoeding, ondervoedingscore, MUST, malnutrition
DCM::LifecycleStatus	Final
DCM::ModelerList	Werkgroep RadB Verpleegkundige Gegevens
DCM::Name	nl.zorg.MUSTScore
DCM::PublicationDate	29-01-2020
DCM::PublicationStatus	Prepublished
DCM::ReviewerList	Projectgroep RadB Verpleegkundige Gegevens & Kerngroep Registratie aan de Bron
DCM::RevisionDate	09-01-2020
DCM::Supersedes	nl.zorg.MUSTScore-v3.0
DCM::Version	3.1
HCIM::PublicationLanguage	EN

## 1.1 Revision History

Publicatieversie 1.0 (01-07-2015)

Publicatieversie 3.0 (01-05-2016)

Bevat: ZIB-453

Publicatieversie 3.1 (29-01-2020)

Bevat: ZIB-922.

## 1.2 Concept

The Malnutrition Universal Screening Tool (MUST) is a (validated) diagnostic screening tool for determining the extent of a patient's malnutrition.

For this screening tool, every patient's Body Mass Index (BMI) and weight loss percentage is calculated, after which the patient is assigned a disease factor. The MUST helps to recognize and treat malnutrition at an early stage.

(Source: Guidelines for Screening and Treating Malnutrition.)

## 1.3 Mindmap

## 1.4 Purpose

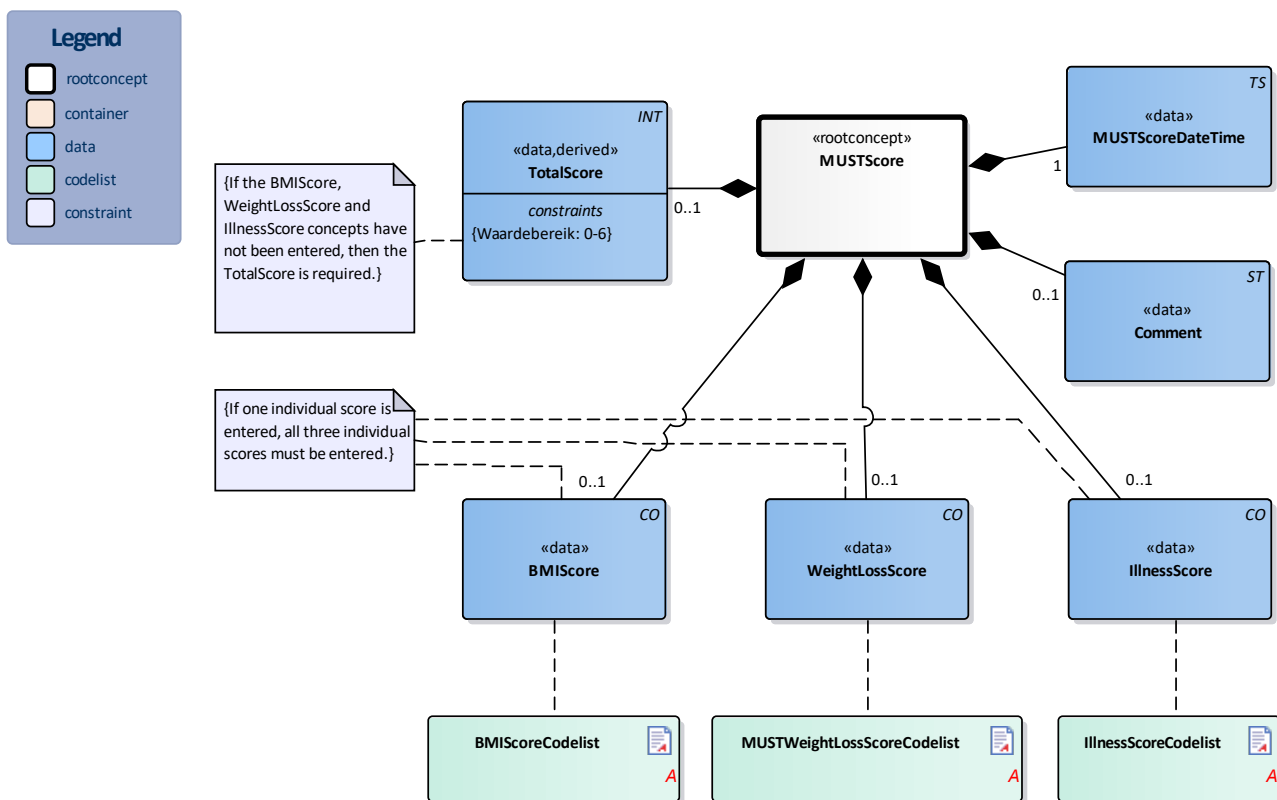
The MUST score is used to determine the extent of malnutrition or the risk of malnutrition. To treat malnutrition quickly and effectively, it is important to identify the malnutrition at an early stage.

## 1.5 Patient Population

The MUST is used for patients aged 18 and older.  
For children, the STRONGkids tool is used.

## 1.6 Evidence Base

## 1.7 Information Model



«rootconcept»	MUSTScore	
Definitie	Root concept of the MUSTScore information model. This root concept contains all data elements of the MUSTScore information model.	
Datatype		
DCM::ConceptId	NL-CM:4.5.1	
DCM::DefinitionCode	SNOMED CT: 414648004 Malnutrition universal screening tool	
Opties		

«data»	BMIScore	
Definitie	A person's Body Mass Index (BMI), also known as their Quetelet index (QI), is an index indicating the ratio between a person's height and weight. This BMI is expressed in kg/m <sup>2</sup> .	
Datatype	CO	
DCM::ConceptId	NL-CM:4.5.3	
DCM::DefinitionCode	ScoreObservaties: 4005003 MUSTScore BMIScore	OID: 2.16.840.1.113883.2.4.3.11.60.40.4.0.1
DCM::ValueSet	BMIScoreCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.4.5.1

<b>Opties</b>	
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<b>«data»</b>	<b>WeightLossScore</b>	
<b>Definitie</b>	The percentage of undesired weight loss over the past 3-6 months.	
<b>Datatype</b>	CO	
<b>DCM::ConceptId</b>	NL-CM:4.5.4	
<b>DCM::DefinitionCode</b>	ScoreObservaties: 4005004 MUSTScore WeightLossScore	OID: 2.16.840.1.113883.2.4.3.11.60.40.4.0.1
<b>DCM::ValueSet</b>	MUSTWeightLossScoreCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.4.5.2
<b>Opties</b>		

<b>«data»</b>	<b>IllnessScore</b>	
<b>Definitie</b>	Illness can result in reduced food intake, leading to a higher risk of malnutrition. The IllnessScore concept is used to indicate that the patient is seriously ill and that the patient has not eaten for more than 5 days or that there is a chance that the patient has not eaten for more than 5 days.	
<b>Datatype</b>	CO	
<b>DCM::ConceptId</b>	NL-CM:4.5.5	
<b>DCM::DefinitionCode</b>	ScoreObservaties: 4005005 MUSTScore IllnessScore	OID: 2.16.840.1.113883.2.4.3.11.60.40.4.0.1
<b>DCM::ValueSet</b>	IllnessScoreCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.4.5.3
<b>Opties</b>		

<b>«data»</b>	<b>TotalScore</b>	
<b>Definitie</b>	The total score is the sum of all the individual scores. The total score has a range from 0 - 6.	
<b>Datatype</b>	INT	
<b>DCM::ConceptId</b>	NL-CM:4.5.2	
<b>DCM::DefinitionCode</b>	SNOMED CT: 444297006 Malnutrition universal screening tool score	
<b>Opties</b>		
<b>Constraint</b>	Waardebereik: 0-6	Voeg hier de Engelse definitie in

<b>«data»</b>	<b>MUSTScoreDateTime</b>	
<b>Definitie</b>	The date and time at which the MUST score was determined.	
<b>Datatype</b>	TS	
<b>DCM::ConceptId</b>	NL-CM:4.5.6	
<b>Opties</b>		

<b>«data»</b>	<b>Comment</b>	
<b>Definitie</b>	A comment on the circumstances during the measurement.	
<b>Datatype</b>	ST	
<b>DCM::ConceptId</b>	NL-CM:4.5.7	
<b>DCM::DefinitionCode</b>	LOINC: 48767-8 Annotation comment	
<b>Opties</b>		

<b>«document»</b>	<b>BMIScoreCodelist</b>	
<b>Definitie</b>		

<b>Datatype</b>	
<b>DCM::ValueSetBinding</b>	Required
<b>DCM::ValueSetId</b>	2.16.840.1.113883.2.4.3.11.60.40.2.4.5.1
<b>Opties</b>	

<b>BMIScoreCodelijst</b>			<b>OID: 2.16.840.1.113883.2.4.3.11.60.40.2.4.5.1</b>		
<b>Concept Name</b>	<b>Concept Value</b>	<b>Concept Code</b>	<b>CodeSys. Name</b>	<b>CodeSystem OID</b>	<b>Description</b>
BMIHigh	0	B0	MUST_BMI	2.16.840.1.113883.2.4.3.11.60.40.4.4.1	BMI >20 kg/m <sup>2</sup>
BMIAverage	1	B1	MUST_BMI	2.16.840.1.113883.2.4.3.11.60.40.4.4.1	BMI tussen 18,5-20 kg/m <sup>2</sup>
BMILow	2	B2	MUST_BMI	2.16.840.1.113883.2.4.3.11.60.40.4.4.1	BMI < 18,5 kg/m <sup>2</sup>

<b>«document»</b>	<b>MUSTWeightLossScoreCodelist</b>
<b>Definitie</b>	
<b>Datatype</b>	
<b>DCM::ValueSetBinding</b>	Required
<b>DCM::ValueSetId</b>	2.16.840.1.113883.2.4.3.11.60.40.2.4.5.2
<b>Opties</b>	

<b>MUSTGewichtsverliesScoreCodelijst</b>			<b>OID: 2.16.840.1.113883.2.4.3.11.60.40.2.4.5.2</b>		
<b>Concept Name</b>	<b>Concept Value</b>	<b>Concept Code</b>	<b>CodeSys. Name</b>	<b>CodeSystem OID</b>	<b>Description</b>
LossLow	0	G0	MUST_Gewichtsverlies	2.16.840.1.113883.2.4.3.11.60.40.4.4.2	Gewichtsverlies <5%
LossAverage	1	G1	MUST_Gewichtsverlies	2.16.840.1.113883.2.4.3.11.60.40.4.4.2	Gewichtsverlies = 5-10%
LossHigh	2	G2	MUST_Gewichtsverlies	2.16.840.1.113883.2.4.3.11.60.40.4.4.2	Gewichtsverlies >10%

<b>«document»</b>	<b>IllnessScoreCodelist</b>
<b>Definitie</b>	
<b>Datatype</b>	
<b>DCM::ValueSetBinding</b>	Extensible
<b>DCM::ValueSetId</b>	2.16.840.1.113883.2.4.3.11.60.40.2.4.5.3
<b>Opties</b>	

<b>ZiekteScoreCodelijst</b>			<b>OID: 2.16.840.1.113883.2.4.3.11.60.40.2.4.5.3</b>		
<b>Concept Name</b>	<b>Concept Value</b>	<b>Concept Code</b>	<b>CodeSys. Name</b>	<b>CodeSystem OID</b>	<b>Description</b>
NotAcutelyIll	0	Z0	MUST_Ziekte	2.16.840.1.113883.2.4.3.11.60.40.4.4.3	Niet ziek
AcutelyIll	2	Z1	MUST_Ziekte	2.16.840.1.113883.2.4.3.11.60.40.4.4.3	Ziek

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

## 1.8 Example Instances

MUSTScore	
MUSTScoreDatumTijd	27-01-2013
BMI Score	2 (BMI < 18,5 kg/m <sup>2</sup> )
GewichtsverliesScore	1 (Gewichtsverlies 5-10%)
ZiekteScore	0 (Niet ziek)
TotaalScore	3
Toelichting	-

## 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. Stuurgroep Ondervoeding [Online] Beschikbaar op: <http://www.stuurgroepondervoeding.nl/> [Geraadpleegd: 13 februari 2015]
2. Bapen [Online] Beschikbaar op: <http://www.bapen.co.uk> [Geraadpleegd: 13 februari 2015]
3. Richtlijn Behandeling en screening ondervoeding. [Online] Beschikbaar op: [http://stuurgroepondervoeding.nl/wp-content/uploads/2015/02/Richtlijn\\_screenen\\_en\\_behandeling\\_van\\_ondervoeding\\_juni\\_2011.pdf](http://stuurgroepondervoeding.nl/wp-content/uploads/2015/02/Richtlijn_screenen_en_behandeling_van_ondervoeding_juni_2011.pdf) [Geraadpleegd: 13 februari 2015]

## 1.16 Functional Model

## 1.17 Traceability to other Standards

## 1.18 Disclaimer

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