

# Health & Care Information Model:

nl.zorg.MUSTScore-v3.1.1

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# Content

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## 1. nl.zorg.MUSTScore-v3.1.1

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	24-04-2024
DCM::PublicationStatus	Published
DCM::ReviewerList	Projectgroep RadB Verpleegkundige Gegevens & Kerngroep Registratie aan de Bron
DCM::RevisionDate	26-05-2022
DCM::Supersedes	nl.zorg.MUSTScore-v3.1
DCM::Version	3.1.1
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 (31-01-2020)

Bevat: ZIB-922.

Publicatieversie 3.1.1 (10-06-2022)

Bevat: ZIB-1636.

### 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

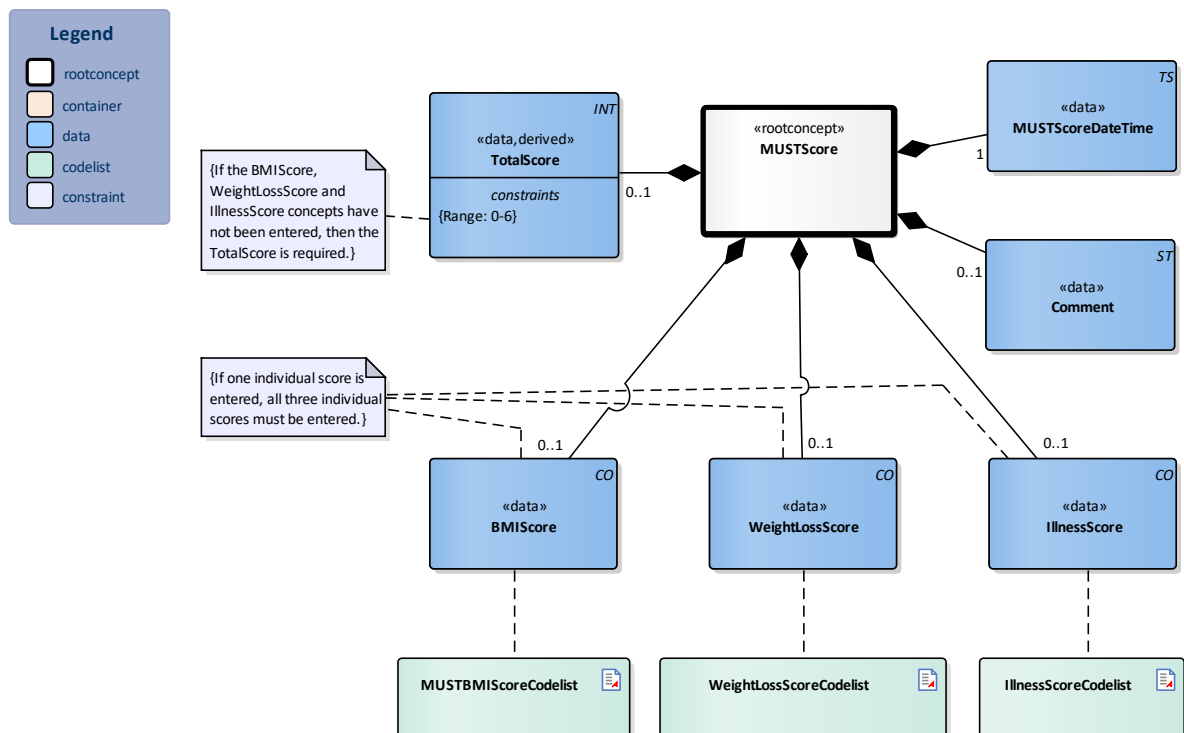
The MUST score is used to determine the extent of malnutrition or the risk of malnutrition. To treat malnutrition quickly and effectively, it is important to identify the malnutrition at an early stage.

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

«data»	BMIScore	
<b>Definitie</b>	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> .	
<b>Datatype</b>	CO	
<b>DCM::ConceptId</b>	NL-CM:4.5.3	
<b>DCM::DefinitionCode</b>	ScoreObservaties: 4005003 MUSTScore BMIScore	OID: 2.16.840.1.113883.2.4.3.11.60.40.4.0.1

<b>DCM::ValueSet</b>	MUSTBMIScoreCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.4.5.1
<b>Opties</b>		

<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>	WeightLossScoreCodelist	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>	<p>Illness can result in reduced food intake, leading to a higher risk of malnutrition.</p> <p>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.</p>	
<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>	Range: 0-6	Voeg hier de Engelse definitie in
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<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>		

«document»		MUSTBMIScoreCodelist			
Definitie					
Datatype					
DCM::ValueSetBinding	Required				
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.60.40.2.4.5.1				
DCM::ValueSetIncludeOTH	False				
DCM::ValueSetStatus	Active				
HCIM::ValueSetLanguage	EN				
Opties					
BMIScoreCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.4.5.1			
Concept Name	Concept Value	Concept Code	CodeSys. Name	CodeSystem OID	Description
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>

«document»		WeightLossScoreCodelist			
Definitie					
Datatype					
DCM::ValueSetBinding	Required				
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.60.40.2.4.5.2				
DCM::ValueSetIncludeOTH	False				
DCM::ValueSetStatus	Active				
HCIM::ValueSetLanguage	EN				
Opties					
GewichtsverliesScoreCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.4.5.2			
Concept Name	Concept Value	Concept Code	CodeSys. Name	CodeSystem OID	Description
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%

«document»		IllnessScoreCodelist			
Definitie					
Datatype					
DCM::ValueSetBinding	Required				
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.60.40.2.4.5.3				
DCM::ValueSetIncludeOTH	False				

<b>DCM::ValueSetStatus</b>	Active				
<b>HCIM::ValueSetLanguage</b>	EN				
<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

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

Constraint	
<b>Definitie</b>	If one individual score is entered, all three individual scores must be entered.
<b>Datatype</b>	
<b>Opties</b>	

Constraint	
<b>Definitie</b>	If the BMIScore, WeightLossScore and IllnessScore concepts have not been entered, then the TotalScore is required.
<b>Datatype</b>	
<b>Opties</b>	

## 1.8 Example Instances

MUSTScore	
MUSTScoreDatumTijd	27-01-2013
BMIScore	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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