

# Health & Care Information Model:

## nl.zorg.ComfortScale-v1.1

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# Content

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# 1. nl.zorg.ComfortScale-v1.1

DCM::CoderList	Werkgroep RadB Verpleegkundige Gegevens
DCM::ContactInformation.Address	*
DCM::ContactInformation.Name	*
DCM::ContactInformation.Telecom	*
DCM::ContentAuthorList	Werkgroep RadB Verpleegkundige Gegevens
DCM::CreationDate	1-8-2016
DCM::DeprecatedDate	
DCM::DescriptionLanguage	nl
DCM::EndorsingAuthority.Address	
DCM::EndorsingAuthority.Name	zorg
DCM::EndorsingAuthority.Telecom	
DCM::Id	2.16.840.1.113883.2.4.3.11.60.40.3.12.12
DCM::KeywordList	Pijnscore, assessment, comfort, comfortneo
DCM::LifecycleStatus	Final
DCM::ModelerList	Werkgroep RadB Verpleegkundige Gegevens
DCM::Name	nl.zorg.ComfortScore
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DCM::RevisionDate	09-01-2020
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DCM::Version	1.1
HCIM::PublicationLanguage	EN

## 1.1 Revision History

Publicatieversie 1.0 (04-09-2017)

Publicatieversie 1.1 (31-01-2020)

Bevat: ZIB-925.

## 1.2 Concept

The Comfort Behaviour scale /Comfortneo scale is an assessment tool, that is used to assess the pain behaviour of neonates (new born).

The Comfort Behaviour scale has 7 observation points that that need to be addressed. For each on observation is value is assigned from a 5-point scale, the final score indicates whether the observed child suffers pain and 'how much'. The score is combined with an NRS score that is completed by the nurses on basis of clinical experience.

## 1.3 Mindmap

## 1.4 Purpose

> A pain observation instrument is a tool in determining the intensity of pain and can be useful in order to determine the effectiveness of pain treatment interventions (pharmacological or non-pharmacological). For new born it is nevertheless difficult to differentiate between pain or distress/anxiety. This is relevant in determining the treatment. The score on a pain measurement instrument remains a snapshot in time.

## 1.5 Patient Population

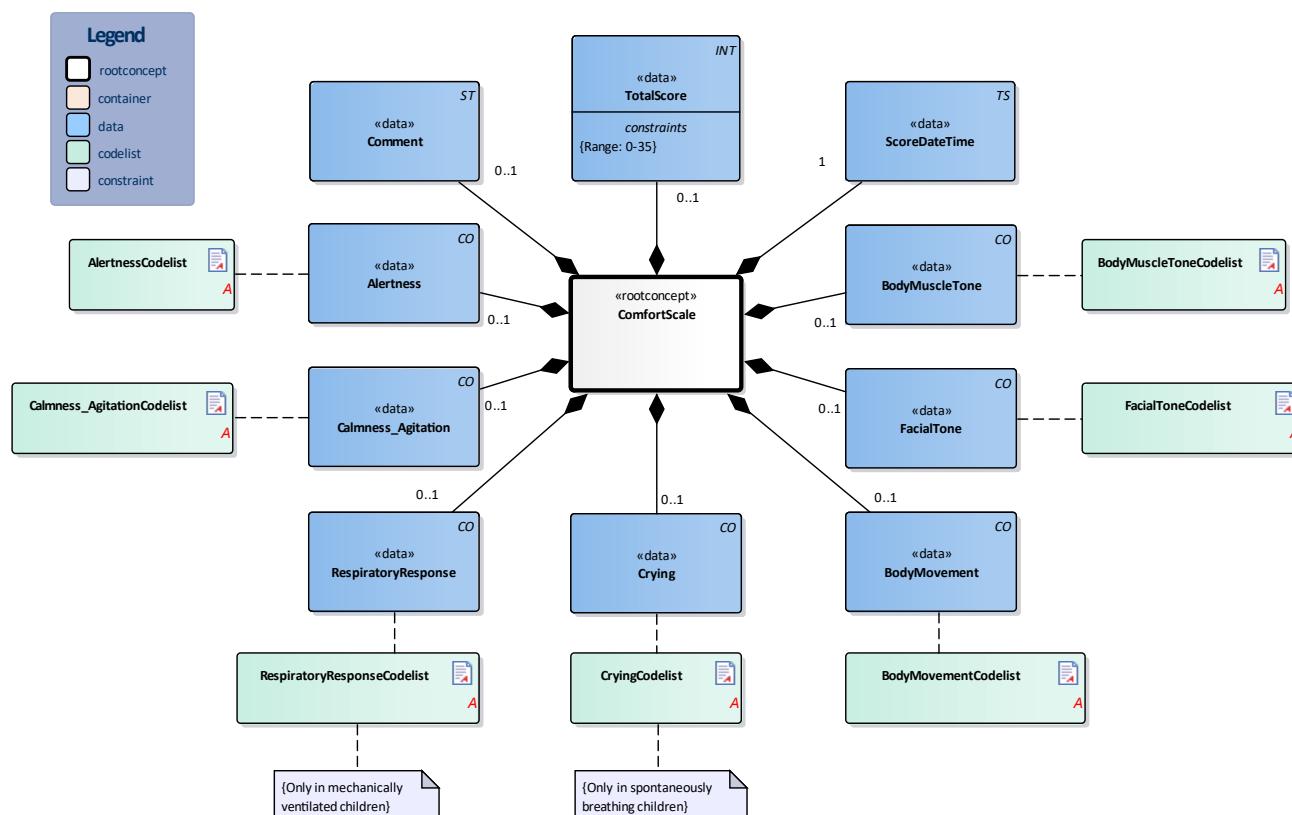
The COMFORT assessment scale is validated for young children up to the age of 4.  
 The COMFORT and COMFORTneo assessment score is validated for preterm neonates

## 1.6 Evidence Base

For determining the degree of pain in children with difficulty expressing themselves there are divers pain observation instruments available

- CPB
- Comfort behaviour scale/ Comfortneo scale
- Flacc

## 1.7 Information Model



«rootconcept»	ComfortScale	
<b>Definitie</b>	Rootconcept of the ComfortScale information model. This root concept contains all data elements of the ComfortScale information model.	
<b>Datatype</b>		
<b>DCM::ConceptId</b>	NL-CM:12.12.1	
<b>DCM::DefinitionCode</b>	SNOMED CT: 108301000146109 COMFORT scale	
<b>Opties</b>		

«data»	TotalScore	
<b>Definitie</b>	The total score is the sum of all the individual scores. The total score has a range from 0 - 35.	
<b>Datatype</b>	INT	
<b>DCM::ConceptId</b>	NL-CM:12.12.2	
<b>DCM::DefinitionCode</b>	SNOMED CT: 48961000146108 COMFORT behavior scale score	

<b>Opties</b>		
<b>Constraint</b>	Range: 0-35	Voeg hier de Engelse definitie in

<b>«data»</b>	<b>Alertness</b>	
<b>Definitie</b>	Observation of: Alertness	
<b>Datatype</b>	CO	
<b>DCM::ConceptId</b>	NL-CM:12.12.3	
<b>DCM::DefinitionCode</b>	ScoreObservaties: 12012003 ComfortScale Alertness	OID: 2.16.840.1.113883.2.4.3.11.60.40.4.0.1
<b>DCM::ValueSet</b>	AlertnessCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.1
<b>Opties</b>		

<b>«data»</b>	<b>Calmness_Agitation</b>	
<b>Definitie</b>	Observation: Calmness/ agitation	
<b>Datatype</b>	CO	
<b>DCM::ConceptId</b>	NL-CM:12.12.4	
<b>DCM::DefinitionCode</b>	ScoreObservaties: 12012004 ComfortScale Calmness_Agitation	OID: 2.16.840.1.113883.2.4.3.11.60.40.4.0.1
<b>DCM::ValueSet</b>	Calmness_AgitationCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.2
<b>Opties</b>		

<b>«data»</b>	<b>RespiratoryResponse</b>	
<b>Definitie</b>	Observation Respiratory response (only in mechanically ventilated children)	
<b>Datatype</b>	CO	
<b>DCM::ConceptId</b>	NL-CM:12.12.5	
<b>DCM::DefinitionCode</b>	ScoreObservaties: 12012005 ComfortScale RespiratoryResponse	OID: 2.16.840.1.113883.2.4.3.11.60.40.4.0.1
<b>DCM::ValueSet</b>	RespiratoryResponseCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.3
<b>Opties</b>		

<b>«data»</b>	<b>Crying</b>	
<b>Definitie</b>	Observation Crying (only in spontaneously breathing children)	
<b>Datatype</b>	CO	
<b>DCM::ConceptId</b>	NL-CM:12.12.6	
<b>DCM::DefinitionCode</b>	ScoreObservaties: 12012006 ComfortScale Crying	OID: 2.16.840.1.113883.2.4.3.11.60.40.4.0.1
<b>DCM::ValueSet</b>	CryingCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.4
<b>Opties</b>		

<b>«data»</b>	<b>BodyMovement</b>	
<b>Definitie</b>	Observation Physical movement	
<b>Datatype</b>	CO	
<b>DCM::ConceptId</b>	NL-CM:12.12.8	
<b>DCM::DefinitionCode</b>	ScoreObservaties: 12012008 ComfortScale BodyMovement	OID: 2.16.840.1.113883.2.4.3.11.60.40.4.0.1

<b>DCM::ValueSet</b>	BodyMovementCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.5
<b>Opties</b>		

<b>«data»</b>	<b>FacialTone</b>	
<b>Definitie</b>	Observation Facial tension	
<b>Datatype</b>	CO	
<b>DCM::ConceptId</b>	NL-CM:12.12.9	
<b>DCM::DefinitionCode</b>	ScoreObservaties: 12012009 ComfortScale FacialTone	OID: 2.16.840.1.113883.2.4.3.11.60.40.4.0.1
<b>DCM::ValueSet</b>	FacialToneCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.6
<b>Opties</b>		

<b>«data»</b>	<b>BodyMuscleTone</b>	
<b>Definitie</b>	Observation Muscle tone	
<b>Datatype</b>	CO	
<b>DCM::ConceptId</b>	NL-CM:12.12.10	
<b>DCM::DefinitionCode</b>	ScoreObservaties: 12012010 ComfortScale BodyMuscleTone	OID: 2.16.840.1.113883.2.4.3.11.60.40.4.0.1
<b>DCM::ValueSet</b>	BodyMuscleToneCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.7
<b>Opties</b>		

<b>«data»</b>	<b>ScoreDateTime</b>	
<b>Definitie</b>	The date and time at which the Comfort Behaviour scale/ComfortNeo scale was determined.	
<b>Datatype</b>	TS	
<b>DCM::ConceptId</b>	NL-CM:12.12.11	
<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:12.12.12	
<b>DCM::DefinitionCode</b>	LOINC: 48767-8 Annotation comment	
<b>Opties</b>		

<b>«document»</b>	<b>RespiratoryResponseCodelist</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. 60.40.2.12.12.3	
<b>Opties</b>		

<b>AdemhalingsreactieCodelijst</b>			<b>OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.3</b>		
<b>Concept Name</b>	<b>Concept Code</b>	<b>Concept Value</b>	<b>CodeSys. Name</b>	<b>CodeSystem OID</b>	<b>Description</b>
No spontaneous respiration	Vent1	1	CN_Ademhalingsreactie	2.16.840.1.113883.2.4.3.11.60.40.4.20.3	Geen spontane ademhaling
Spontaneous respiration on	Vent2	2	CN_Ademhalingsreactie	2.16.840.1.113883.2.4.3.11.60.40.4.20.3	Spontane ademhaling aan de beademing

ventilator					
Unrest or resistance to ventilator	Vent3	3	CN_Ademhalingsreactie	2.16.840.1.113883.2.4.3.11.60.40.2.12.12.1	Onrust of verzet tegen de beademing
Actively breathes against ventilator or coughs regularly	Vent4	4	CN_Ademhalingsreactie	2.16.840.1.113883.2.4.3.11.60.40.2.12.12.1	Ademt actief tegen de beademing in of hoest regelmatig
Fights ventilator	Vent5	5	CN_Ademhalingsreactie	2.16.840.1.113883.2.4.3.11.60.40.2.12.12.1	Vecht tegen de beademing

«document»	AlertnessCodelist	
<b>Definitie</b>		
<b>Datatype</b>		
<b>DCM::ValueSetBinding</b>	Required	
<b>DCM::ValueSetId</b>	2.16.840.1.113883.2.4.3.11.60.40.2.12.12.1	
<b>Opties</b>		

AlertheidCodelijst			OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.1		
Concept Name	Concept Code	Concept Value	CodeSys. Name	CodeSystem OID	Description
Deeply asleep	Alert1	1	CN_Alertheid	2.16.840.1.113883.2.4.3.11.60.40.2.12.12.1	Diep in slaap (ogen dicht, geen reactie op omgeving)
Lightly asleep	Alert2	2	CN_Alertheid	2.16.840.1.113883.2.4.3.11.60.40.2.12.12.1	Licht in slaap (ogen grotendeels gesloten, af en toe reactie)
Drowsy	Alert3	3	CN_Alertheid	2.16.840.1.113883.2.4.3.11.60.40.2.12.12.1	Slaperig (kind sluit vaak zijn ogen, reageert minder op omgeving)
Awake and alert	Alert4	4	CN_Alertheid	2.16.840.1.113883.2.4.3.11.60.40.2.12.12.1	Wakker en alert (kind reageert op omgeving)
Awake and hyperalert	Alert5	5	CN_Alertheid	2.16.840.1.113883.2.4.3.11.60.40.2.12.12.1	Wakker en hyper-alert (overdreven reactie op veranderingen)

«document»	FacialToneCodelist	
<b>Definitie</b>		
<b>Datatype</b>		
<b>DCM::ValueSetBinding</b>	Required	
<b>DCM::ValueSetId</b>	2.16.840.1.113883.2.4.3.11.60.40.2.12.12.6	
<b>Opties</b>		

GezichtsspanningCodelijst			OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.6		
Concept Name	Concept Code	Concept Value	CodeSys. Name	CodeSystem OID	Description
Facial muscles totally relaxed	Face1	1	CN_Gezichtsspanning	2.16.840.1.113883.2.4.3.11.60.40.2.12.12.6	Gezichtsspieren volkomen ontspannen
Normal facial tone	Face2	2	CN_Gezichtsspanning	2.16.840.1.113883.2.4.3.11.60.40.2.12.12.6	Normale spanning van het gezicht
Tension evident in some facial	Face3	3	CN_Gezichtsspanning	2.16.840.1.113883.2.4.3.11.60.40.2.12.12.6	Spanning duidelijk in sommige gelaatsspieren

muscles					(niet aanhoudend)
Tension evident throughout facial muscles	Face4	4	CN_Gezichtssp anning	2.16.840.1.113883.2. 4.3.11.60.40.4.20.6	Spanning duidelijk in alle gelaatsspieren (aanhoudend)
Facial muscles contorted and grimacing	Face5	5	CN_Gezichtssp anning	2.16.840.1.113883.2. 4.3.11.60.40.4.20.6	Gezichtsspieren verwongen en in een grimas

«document»		Calmness_AgitationCodelist			
Definitie					
Datatype					
DCM::ValueSetBinding		Required			
DCM::ValueSetId		2.16.840.1.113883.2.4.3.11. 60.40.2.12.12.2			
Opties					
Kalmte_AgitatieCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.2			
Concept Name	Concept Code	Concept Waarde	CodeSys. Name	CodeSystem OID	Description
Calm	Calm1	1	CN_Kalmte_Ag itatie	2.16.840.1.113883.2. 4.3.11.60.40.4.20.2	Kalm (kind helder en rustig)
Slightly anxious	Calm2	2	CN_Kalmte_Ag itatie	2.16.840.1.113883.2. 4.3.11.60.40.4.20.2	Licht angstig (kind toont lichte onrust)
Anxious	Calm3	3	CN_Kalmte_Ag itatie	2.16.840.1.113883.2. 4.3.11.60.40.4.20.2	Angstig (kind lijkt onrustig, kan zich beheersen)
Very anxious	Calm4	4	CN_Kalmte_Ag itatie	2.16.840.1.113883.2. 4.3.11.60.40.4.20.2	Zeer angstig (kind lijkt zeer onrustig, kan zich nog net beheersen)
Panicky	Calm5	5	CN_Kalmte_Ag itatie	2.16.840.1.113883.2. 4.3.11.60.40.4.20.2	Paniekerig (ernstige onrust met verlies van beheersing)

«document»		BodyMuscleToneCodelist			
Definitie					
Datatype					
DCM::ValueSetBinding		Required			
DCM::ValueSetId		2.16.840.1.113883.2.4.3.11. 60.40.2.12.12.7			
Opties					
SpierspanningCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.7			
Concept Name	Concept Code	Concept Value	CodeSys. Name	CodeSystem OID	Description
Muscles fully relaxed	Musc1	1	CN_Spierspanni ng	2.16.840.1.113883.2. 4.3.11.60.40.4.20.7	Spiereen volledig ontspannen; geen spierspanning
Reduced muscle tone	Musc2	2	CN_Spierspanni ng	2.16.840.1.113883.2. 4.3.11.60.40.4.20.7	Verminderde spierspanning; minder weerstand dan normaal
Normal muscle tone	Musc3	3	CN_Spierspanni ng	2.16.840.1.113883.2. 4.3.11.60.40.4.20.7	Normale spierspanning
Increased muscle tone	Musc4	4	CN_Spierspanni ng	2.16.840.1.113883.2. 4.3.11.60.40.4.20.7	Toegenomen spierspanning en buiging van vingers en



					tenen
Extreme muscle rigidity	Musc5	5	CN_Spierspanning	2.16.840.1.113883.2.4.3.11.60.40.4.20.7	Extreme spierstijfheid en buiging van vingers en tenen

«document»		CryingCodelist			
Definitie					
Datatype					
DCM::ValueSetBinding		Required			
DCM::ValueSetId		2.16.840.1.113883.2.4.3.11.60.40.2.12.12.4			
Opties					
HuilenCodelijst			OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.4		
Concept Name	Concept Code	Concept Value	CodeSys. Name	CodeSystem OID	Description
Quiet breathing	Cry1	1	CN_Huilen	2.16.840.1.113883.2.4.3.11.60.40.4.20.4	Geen huilgeluiden
Occasional sobbing or moaning	Cry2	2	CN_Huilen	2.16.840.1.113883.2.4.3.11.60.40.4.20.4	Af en toe snikken of kreunen (nasnikken)
Whining	Cry3	3	CN_Huilen	2.16.840.1.113883.2.4.3.11.60.40.4.20.4	Jengelen of dreinen (monotoon geluid)
Crying	Cry4	4	CN_Huilen	2.16.840.1.113883.2.4.3.11.60.40.4.20.4	Huilen
Screaming or shrieking	Cry5	5	CN_Huilen	2.16.840.1.113883.2.4.3.11.60.40.4.20.4	Schreeuwen of krijsen

«document»		BodyMovementCodelist			
Definitie					
Datatype					
DCM::ValueSetBinding		Required			
DCM::ValueSetId		2.16.840.1.113883.2.4.3.11.60.40.2.12.12.5			
Opties					
LichaamsbewegingCodelijst			OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.5		
Concept Name	Concept Code	Concept Value	CodeSys. Name	CodeSystem OID	Description
No movement	Mov1	1	CN_Lichaamsbeweging	2.16.840.1.113883.2.4.3.11.60.40.4.20.5	Geen beweging
Occasional, slight movements	Mov2	2	CN_Lichaamsbeweging	2.16.840.1.113883.2.4.3.11.60.40.4.20.5	Incidentele (3 of minder) kleine bewegingen
Frequent, slight movements	Mov3	3	CN_Lichaamsbeweging	2.16.840.1.113883.2.4.3.11.60.40.4.20.5	Frequente (3 of meer) kleine bewegingen
Vigorous movements limited to extremities	Mov4	4	CN_Lichaamsbeweging	2.16.840.1.113883.2.4.3.11.60.40.4.20.5	Heftige bewegingen met armen en benen
Vigorous movements including torso and head	Mov5	5	CN_Lichaamsbeweging	2.16.840.1.113883.2.4.3.11.60.40.4.20.5	Heftige bewegingen ook met romp en hoofd

	Legend
Definitie	
Datatype	
Opties	

## 1.8 Example Instances

ComfortScore	
ScoreDatumTijd	21-12-2016 12:05
Alertheid	4 (wakker en alert)
Kalmte_Agitatie	2 (licht angstig)
Huilen	2 (af en toe snikken of kreunen)
Lichaamsbeweging	2 (incidentele beweging)
Gezichtsspanning	2 (normale spanning van het gelaat)
Spierspanning	2 (verminderde spierspanning)
Totaalscore	14
Toelichting	Controle na verhogen pijnmedicatie.

ComfortNeoScore	
ScoreDatumTijd	21-12-2016 12:05
Alertheid	4 (wakker en alert)
Kalmte_Agitatie	2 (licht angstig)
Ademhalingsreactie	3 (af en toe hoesten of verzet tegen de ventilator)
Lichaamsbeweging	2 (incidentele beweging)
Gezichtsspanning	2 (normale spanning van het gelaat)
Spierspanning	2 (verminderde spierspanning)
Totaalscore	15
Toelichting	Controle na verhogen pijnmedicatie.

## 1.9 Instructions

In the ComfortNeo scale the item crying is replaced by respiratory reaction.  
In the Comfort scale the item respiratory reaction is replaced by crying.

## 1.10 Interpretation

## 1.11 Care Process

## 1.12 Example of the Instrument

## 1.13 Constraints

## 1.14 Issues

## 1.15 References

1. Comfort assessment [Online] Beschikbaar op: <http://www.comfortassessment.nl/> [Geraadpleegd: 2 augustus 2016]
2. Richtlijn Pijnmeting en Behandeling van pijn bij kinderen, NVK, 2007 [Online] Beschikbaar op: <https://www.nvk.nl/Kwaliteit/Richtlijnenoverzicht/Details/tabid/1558/articleType/ArticleView/articleId/760/Pijn-meting-en-behandeling-van.aspx> [Geraadpleegd: 21 december 2016]

## 1.16 Functional Model

## 1.17 Traceability to other Standards

## 1.18 Disclaimer

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