

Health & Care Information Model: nl.zorg.ComfortScale-v1.0

Final

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1. nl.zorg.ComfortScale-v1.0

| | |
|---------------------------------|--|
| 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 |
| DCM::PublicationDate | 04-09-2017 |
| DCM::PublicationStatus | Prepublished |
| DCM::ReviewerList | Projectgroep RadB Verpleegkundige Gegevens & Kerngroep Registratie aan de Bron |
| DCM::RevisionDate | 04-09-2017 |
| DCM::Superseeds | |
| DCM::Version | 1.0 |
| HCIM::PublicationLanguage | EN |

1.1 Revision History

Publicatieversie 1.0 (04-09-2017)

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

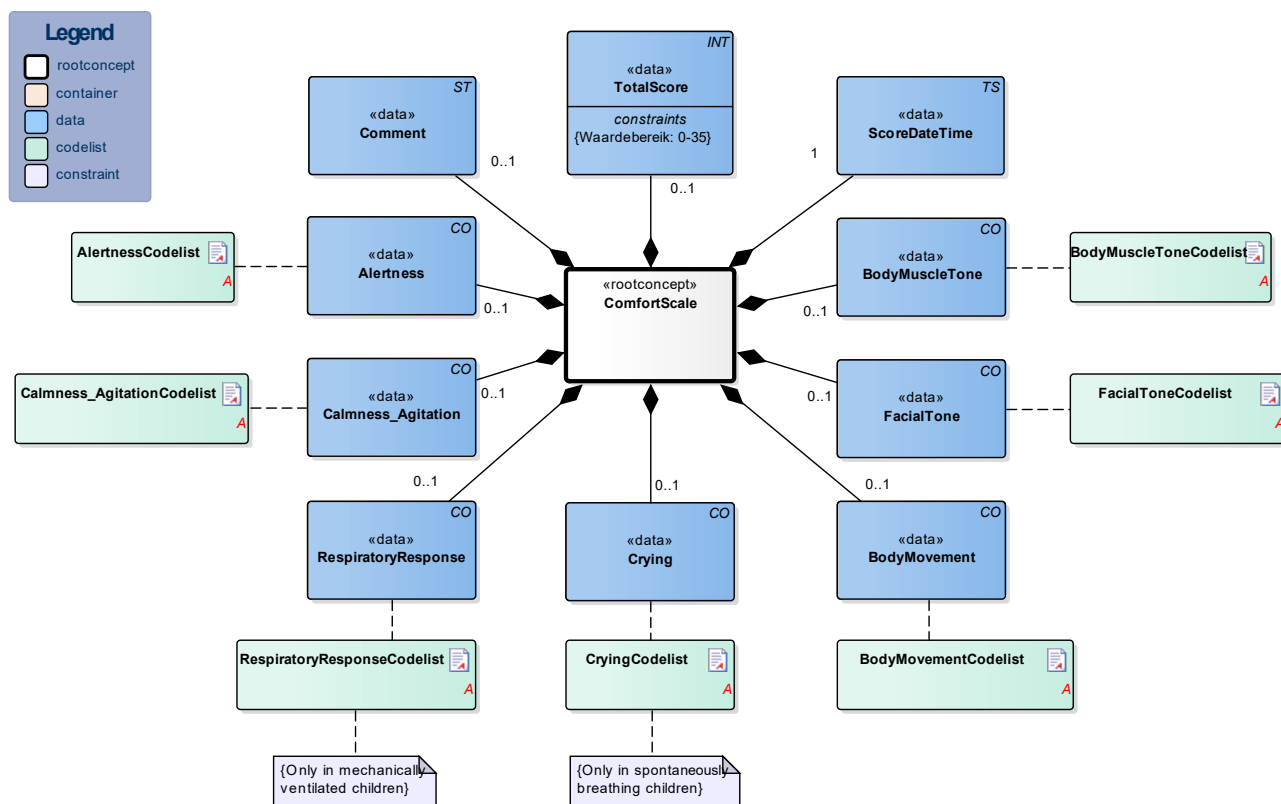
The COMFORT assessment scale is validated for young children up to the age of 4.
 The COMFORT and COMFORTneo assessment score is validated for preterm neonates

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 |
|----------------|--|
| Definitie | Rootconcept of the ComfortScale information model. This root concept contains all data elements of the ComfortScale information model. |
| Datatype | |
| DCM::ConceptId | NL-CM:12.12.1 |
| Opties | |

| «data» | TotalScore |
|-----------|--|
| Definitie | The total score is the sum of all the individual scores. The total score has a |

| | | |
|-----------------------|--------------------|-----------------------------------|
| | range from 0 - 35. | |
| Datatype | INT | |
| DCM::ConceptId | NL-CM:12.12.2 | |
| Opties | | |
| Constraint | Waardebereik: 0-35 | Voeg hier de Engelse definitie in |

| | | |
|-----------------------|---------------------------|--|
| «data» | Alertness | |
| Definitie | Observation of: Alertness | |
| Datatype | CO | |
| DCM::ConceptId | NL-CM:12.12.3 | |
| DCM::ValueSet | AlertnessCodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.1 |
| Opties | | |

| | | |
|-----------------------|----------------------------------|--|
| «data» | Calmness_Agitation | |
| Definitie | Observation: Calmness/ agitation | |
| Datatype | CO | |
| DCM::ConceptId | NL-CM:12.12.4 | |
| DCM::ValueSet | Calmness_AgitationCodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.2 |
| Opties | | |

| | | |
|-----------------------|---|--|
| «data» | RespiratoryResponse | |
| Definitie | Observation Respiratory response (only in mechanically ventilated children) | |
| Datatype | CO | |
| DCM::ConceptId | NL-CM:12.12.5 | |
| DCM::ValueSet | RespiratoryResponseCodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.3 |
| Opties | | |

| | | |
|-----------------------|---|--|
| «data» | Crying | |
| Definitie | Observation Crying (only in spontaneously breathing children) | |
| Datatype | CO | |
| DCM::ConceptId | NL-CM:12.12.6 | |
| DCM::ValueSet | CryingCodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.4 |
| Opties | | |

| | | |
|-----------------------|-------------------------------|--|
| «data» | BodyMovement | |
| Definitie | Observation Physical movement | |
| Datatype | CO | |
| DCM::ConceptId | NL-CM:12.12.8 | |
| DCM::ValueSet | BodyMovementCodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.5 |
| Opties | | |

| «data» | FacialTone | |
|----------------|----------------------------|--|
| Definitie | Observation Facial tension | |
| Datatype | CO | |
| DCM::ConceptId | NL-CM:12.12.9 | |
| DCM::ValueSet | FacialToneCodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.6 |
| Opties | | |

| «data» | BodyMuscleTone | |
|----------------|-------------------------|--|
| Definitie | Observation Muscle tone | |
| Datatype | CO | |
| DCM::ConceptId | NL-CM:12.12.10 | |
| DCM::ValueSet | BodyMuscleToneCodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.7 |
| Opties | | |

| «data» | ScoreDateTime | |
|----------------|---|--|
| Definitie | The date and time at which the Comfort Behaviour scale/ComfortNeo scale was determined. | |
| Datatype | TS | |
| DCM::ConceptId | NL-CM:12.12.11 | |
| Opties | | |

| «data» | Comment | |
|---------------------|--|--|
| Definitie | A comment on the circumstances during the measurement. | |
| Datatype | ST | |
| DCM::ConceptId | NL-CM:12.12.12 | |
| DCM::DefinitionCode | LOINC: 48767-8 Annotation comment | |
| Opties | | |

| «document» | RespiratoryResponseCodelist | |
|-----------------|--|--|
| Definitie | | |
| Datatype | | |
| DCM::ValueSetId | 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.3 | |
| Opties | | |

| AdemhalingsreactieCodelijst | | | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.3 | | |
|---------------------------------------|--------------|---------------|---|---|---|
| Concept Name | Concept Code | Concept Value | CodeSys. Name | CodeSystem OID | Description |
| 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 ventilator | Vent2 | 2 | CN_Ademhalingsreactie | 2.16.840.1.113883.2.4.3.11.60.40.4.20.3 | Spontane ademhaling aan de beademing |
| Unrest or resistance to ventilator | Vent3 | 3 | CN_Ademhalingsreactie | 2.16.840.1.113883.2.4.3.11.60.40.4.20.3 | Onrust of verzet tegen de beademing |
| Actively breathes against ventilator | Vent4 | 4 | CN_Ademhal | 2.16.840.1.113883.2. | Ademt actief tegen de beademing in of hoest |

| | | | | | |
|---------------------|-------|---|-----------------------|--|--------------------------|
| or coughs regularly | | | ingsreactie | 4.3.11.60.40.4.20.3 | 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 | | | |
|-----------------|--|--|--|--|--|
| Definitie | | | | | |
| Datatype | | | | | |
| DCM::ValueSetId | | 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.1 | | | |
| Opties | | | | | |

| 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 | 2.16.840.1.113883.2.4.3.11.60.40.4.20.1 | Diep in slaap (ogen dicht, geen reactie op omgeving) |
| Lightly asleep | Alert2 | 2 | CN_Alertheid | 2.16.840.1.113883.2.4.3.11.60.40.4.20.1 | Licht in slaap (ogen grotendeels gesloten, af en toe reactie) |
| Drowsy | Alert3 | 3 | CN_Alertheid | 2.16.840.1.113883.2.4.3.11.60.40.4.20.1 | Slaperig (kind sluit vaak zijn ogen, reageert minder op omgeving) |
| Awake and alert | Alert4 | 4 | CN_Alertheid | 2.16.840.1.113883.2.4.3.11.60.40.4.20.1 | Wakker en alert (kind reageert op omgeving) |
| Awake and hyperalert | Alert5 | 5 | CN_Alertheid | 2.16.840.1.113883.2.4.3.11.60.40.4.20.1 | Wakker en hyper-alert (overdreven reactie op veranderingen) |

| «document» | | FacialToneCodelist | | | |
|-----------------|--|--|--|--|--|
| Definitie | | | | | |
| Datatype | | | | | |
| DCM::ValueSetId | | 2.16.840.1.113883.2.4.3.11.60.40.2.12.12.6 | | | |
| Opties | | | | | |

| 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 | 2.16.840.1.113883.2.4.3.11.60.40.4.20.6 | Gezichtsspieren volkomen ontspannen |
| Normal facial tone | Face2 | 2 | CN_Gezichtsspanning | 2.16.840.1.113883.2.4.3.11.60.40.4.20.6 | Normale spanning van het gezicht |
| Tension evident in some facial muscles | Face3 | 3 | CN_Gezichtsspanning | 2.16.840.1.113883.2.4.3.11.60.40.4.20.6 | Spanning duidelijk in sommige gelaatsspieren (niet aanhoudend) |
| Tension evident throughout facial muscles | Face4 | 4 | CN_Gezichtsspanning | 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_Gezichtsspanning | 2.16.840.1.113883.2.4.3.11.60.40.4.20.6 | Gezichtsspieren verwrongen en in een grimas |

| «document» | | Calmness_AgitationCodelist | | | |
|--------------------------|--------------|---|--------------------|---|---|
| Definitie | | | | | |
| Datatype | | | | | |
| 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_Agitatie | 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_Agitatie | 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_Agitatie | 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_Agitatie | 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_Agitatie | 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::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_Spierspanning | 2.16.840.1.113883.2.4.3.11.60.40.4.20.7 | Spiereen volledig ontspannen; geen spierverspanning |
| Reduced muscle tone | Musc2 | 2 | CN_Spierspanning | 2.16.840.1.113883.2.4.3.11.60.40.4.20.7 | Verminderde spierverspanning; minder weerstand dan normaal |
| Normal muscle tone | Musc3 | 3 | CN_Spierspanning | 2.16.840.1.113883.2.4.3.11.60.40.4.20.7 | Normale spierverspanning |
| Increased muscle tone | Musc4 | 4 | CN_Spierspanning | 2.16.840.1.113883.2.4.3.11.60.40.4.20.7 | Toegenomen spierverspanning 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::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::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_Lichaams beweging | 2.16.840.1.113883.2.4.3.11.60.40.4.20.5 | Geen beweging |
| Occasional, slight movements | Mov2 | 2 | CN_Lichaams beweging | 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_Lichaams beweging | 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_Lichaams beweging | 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_Lichaams beweging | 2.16.840.1.113883.2.4.3.11.60.40.4.20.5 | Heftige bewegingen ook met romp en hoofd |

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:

1.16 Functional Model

1.17 Traceability to other Standards

1.18 Disclaimer

This Health and Care Information Model (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 this Health and Care Information Model. 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 this 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.

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