

Health & Care Information Model:

nl.zorg.BloodPressure-v5.1

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1. nl.zorg.BloodPressure-v5.1

| | |
|---------------------------------|--|
| 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 | 2.16.840.1.113883.2.4.3.11.60.40.3.12.4 |
| DCM::KeywordList | bloeddruk, diastolische bloeddruk, systolische bloeddruk, tensie |
| DCM::LifecycleStatus | Final |
| DCM::ModelerList | Kerngroep Registratie aan de Bron |
| DCM::Name | nl.zorg.Bloeddruk |
| DCM::PublicationDate | 23-04-2025 |
| DCM::PublicationStatus | Published |
| DCM::ReviewerList | Projectgroep Generieke Overdrachtsgegevens & Kerngroep Registratie aan de Bron |
| DCM::RevisionDate | 03-04-2025 |
| DCM::Supersedes | nl.zorg.Bloeddruk-v5.0 |
| DCM::Version | 5.1 |
| 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-135, ZIB-136, ZIB-137, ZIB-148, ZIB-169, ZIB-218, ZIB-219, ZIB-220, ZIB-308, ZIB-315, ZIB-362, ZIB-363.

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-552, ZIB-564, ZIB-571.

Publicatieversie 3.2 (31-01-2020)

Bevat: ZIB-846.

Publicatieversie 3.2.1 (01-09-2020)

Bevat: ZIB-962.

Publicatieversie 4.0 (15-10-2023)

Bevat: ZIB-1731, ZIB-1813

Publicatieversie 5.0 (15-04-2024)
Bevat: ZIB-2036, ZIB-2112, ZIB-2218.

Publicatieversie 5.1 (23-04-2025)
Bevat: ZIB-2587.

1.2 Concept

The arterial blood pressure is a parameter for determining the condition of the mmHg blood circulation and is expressed in systolic and diastolic pressure in .

1.3 Mindmap

1.4 Purpose

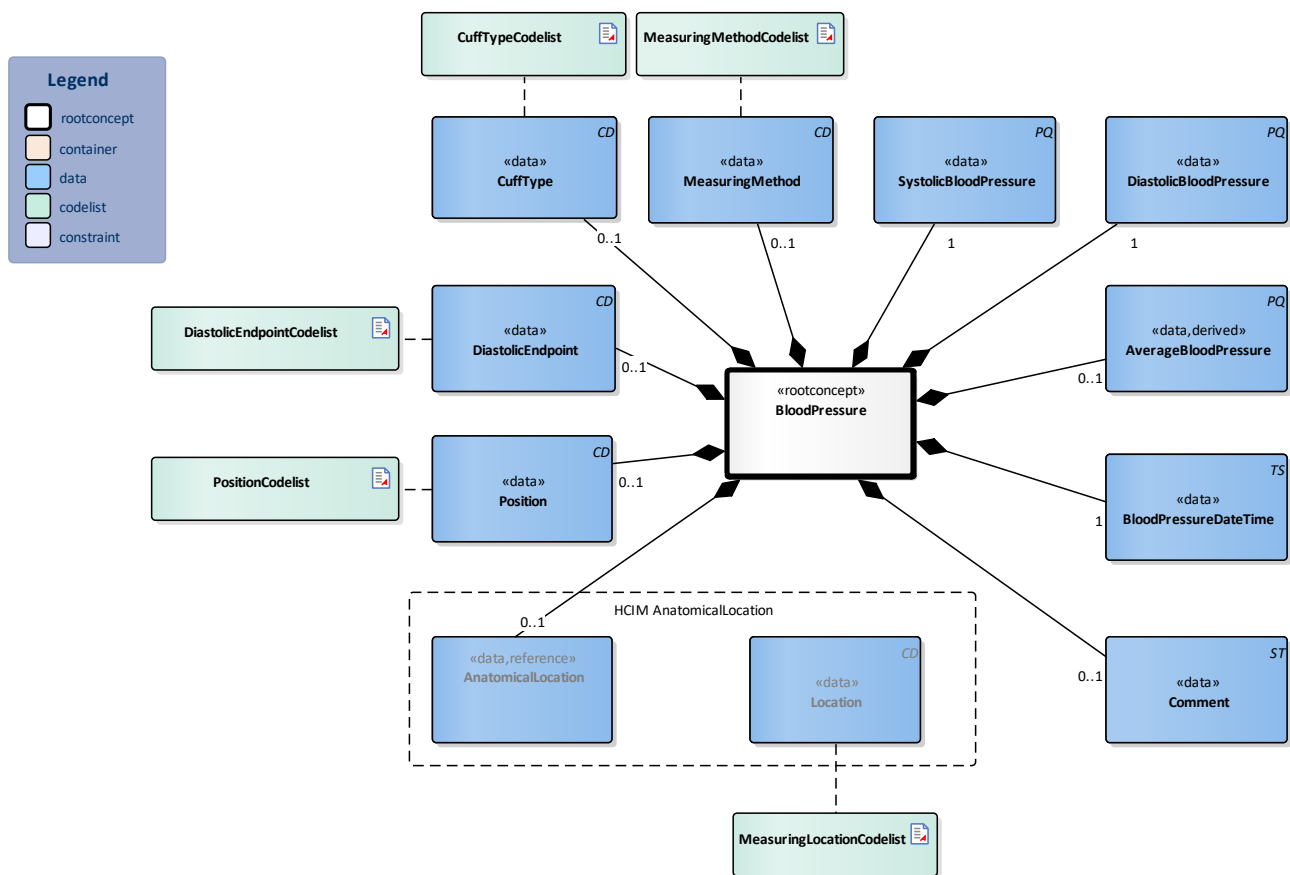
Blood pressure is measured to gain an indication of the health condition of the patient's cardiovascular system.

1.5 Patient Population

1.6 Evidence Base

The local measurement of the arterial blood pressure, which acts as a surrogate for the arterial pressure in the systematic circulation. In most cases, the term 'blood pressure' refers to the measurement of blood pressure of the arteria brachialis in the upper arm with the cuff using the Riva-Rocci method. The protocol for this measurement comprises many details that are not general knowledge (such as the correct way to interpret Korotkoff sounds) or carried out correctly (adjusting the cuff width to a very large or small diameter of the upper arm, the right rate of descent of the mercury column, cut-off values for cardiac arrhythmias).

1.7 Information Model



| «rootconcept» | BloodPressure | |
|---------------------|---|--|
| Definitie | Root concept of the BloodPressure information model. This root concept contains all data elements of the BloodPressure information model. | |
| Datatype | | |
| DCM::ConceptId | NL-CM:12.4.1 | |
| DCM::DefinitionCode | LOINC: 85354-9 Blood pressure panel | |
| DCM::DefinitionCode | SNOMED CT: 46973005 Blood pressure taking | |
| Opties | | |

| «data» | CuffType | |
|---------------------|---|---|
| Definitie | The size of the cuff used in the measurement. | |
| Datatype | CD | |
| DCM::ConceptId | NL-CM:12.4.9 | |
| DCM::DefinitionCode | SNOMED CT: 70665002 blood pressure cuff | |
| DCM::ValueSet | CuffTypeCodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.3 |
| Opties | | |

| «data» | MeasuringMethod | |
|----------------|--|---|
| Definitie | The type of method used to measure blood pressure. | |
| Datatype | CD | |
| DCM::ConceptId | NL-CM:12.4.7 | |
| DCM::ValueSet | MeasuringMethodCodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.1 |
| Opties | | |

| «data» | SystolicBloodPressure | |
|--------|-----------------------|--|
|--------|-----------------------|--|

| | | |
|----------------------------|--|--|
| Definitie | The highest (peak) systematic arterial blood pressure - measured in the contraction stage or systole of the cardiac cycle. | |
| Datatype | PQ | |
| DCM::ConceptId | NL-CM:12.4.2 | |
| DCM::DefinitionCode | LOINC: 8480-6 Systolic blood pressure | |
| DCM::ExampleValue | 155 mmHg | |
| Opties | | |

| | | |
|----------------------------|--|--|
| «data» | DiastolicBloodPressure | |
| Definitie | The lowest systematic arterial blood pressure - measured in the relaxation stage or diastole of the cardiac cycle. | |
| Datatype | PQ | |
| DCM::ConceptId | NL-CM:12.4.3 | |
| DCM::DefinitionCode | LOINC: 8462-4 Diastolic blood pressure | |
| DCM::ExampleValue | 70 mmHg | |
| Opties | | |

| | | |
|----------------------------|---|--|
| «data» | AverageBloodPressure | |
| Definitie | Average blood pressure during one cycle of the heart contracting and relaxing. Estimated based on systolic and diastolic blood pressure. This estimate is unreliable in cases of circulatory disorders. This value can only be reliably determined when invasive blood pressure is measured. | |
| Datatype | PQ | |
| DCM::ConceptId | NL-CM:12.4.4 | |
| DCM::DefinitionCode | SNOMED CT: 6797001 mean arterial pressure | |
| Opties | | |

| | | |
|-----------------------|---|--|
| «data» | BloodPressureDateTime | |
| Definitie | The date and time at which these blood pressure values were measured. | |
| Datatype | TS | |
| DCM::ConceptId | NL-CM:12.4.5 | |
| Opties | | |

| | | |
|----------------------------|--|--|
| «data» | Comment | |
| Definitie | Comments on the measured blood pressure. Here, an explanation could be given, for example, of circumstances that may have influenced the patient's blood pressure, such as pain, stress, exertion and sleep/wake cycles. | |
| Datatype | ST | |
| DCM::ConceptId | NL-CM:12.4.6 | |
| DCM::DefinitionCode | LOINC: 48767-8 Annotation comment | |
| Opties | | |

| | | |
|---------------------------------|--|---|
| «data» | AnatomicalLocation | |
| Definitie | Anatomical location where the blood pressure was measured. | |
| Datatype | | |
| DCM::ConceptId | NL-CM:12.4.12 | |
| DCM::ReferencedConceptId | NL-CM:20.7.1 | This is a reference to the rootconcept of information model AnatomicalLocation. |
| Opties | | |

| «data» | Location | |
|----------------|------------------------------|---|
| Definitie | Localisation on/in the body. | |
| Datatype | CD | |
| DCM::ConceptId | NL-CM:20.7.4 | |
| DCM::ValueSet | MeasuringLocationCodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.4 |
| Opties | | |

| «data» | Position | |
|-------------------|---|---|
| Definitie | The position of the patient when the blood pressure was measured. | |
| Datatype | CD | |
| DCM::ConceptId | NL-CM:12.4.11 | |
| DCM::ExampleValue | Zittend | |
| DCM::ValueSet | PositionCodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.5 |
| Opties | | |

| «data» | DiastolicEndpoint | |
|---------------------|--|---|
| Definitie | Registration of the Korotkoff sound used to measure diastolic pressure with the auscultatory method. | |
| Datatype | CD | |
| DCM::ConceptId | NL-CM:12.4.8 | |
| DCM::DefinitionCode | SNOMED CT: 85549003 Korotkoff sound | |
| DCM::ValueSet | DiastolicEndpointCodelist | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.2 |
| Opties | | |

| «document» | DiastolicEndpointCodelist | | | |
|------------------------------|---|--|------------------------|-------------|
| Definitie | | | | |
| Datatype | | | | |
| DCM::ValueSetBinding | Required | | | |
| DCM::ValueSetId | 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.2 | | | |
| DCM::ValueSetIncludeOTH | True | | | |
| DCM::ValueSetStatus | Active | | | |
| HCIM::ValueSetLanguage | -- | | | |
| Opties | | | | |
| DiastolischEindpuntCodelijst | | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.2 | | |
| Concept Name | Concept Code | Coding Syst. Name | Coding System OID | Description |
| Phase 4 | 255271000 | SNOMED CT | 2.16.840.1.113883.6.96 | Fase IV |
| Phase 5 | 255272007 | SNOMED CT | 2.16.840.1.113883.6.96 | Fase V |

| «document» | CuffTypeCodelist | |
|----------------------|---|--|
| Definitie | | |
| Datatype | | |
| DCM::ValueSetBinding | Required | |
| DCM::ValueSetId | 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.3 | |

| DCM::ValueSetInclude OTH | True | | | |
|--------------------------|--------------|-------------------|--|---|
| DCM::ValueSetStatus | Active | | | |
| HCIM::ValueSetLanguage | NL | | | |
| Opties | | | | |
| ManchetTypeCodelijst | | | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.3 | |
| Concept Name | Concept Code | Coding Syst. Name | Coding System OID | Description |
| Standaard | STD | ManchetType | 2.16.840.1.113883.2.4.3.11.60.40.4.15.1 | Standaard (Standaard manchet voor een volwassene (manchet 16x30 cm)) |
| Groot | L | ManchetType | 2.16.840.1.113883.2.4.3.11.60.40.4.15.1 | Groot (Een manchet voor een volwassene met een armomtrek van 35 tot 44 cm (manchet 16x36 cm)) |
| Klein | S | ManchetType | 2.16.840.1.113883.2.4.3.11.60.40.4.15.1 | Klein (Een manchet voor een volwassene met een armomtrek van 22 tot 26 cm (manchet 12x22 cm)) |
| Extra groot | XL | ManchetType | 2.16.840.1.113883.2.4.3.11.60.40.4.15.1 | Extra groot (Een manchet voor het dijbeen of arm wanneer de armomtrek 45 tot 52 cm is (manchet 16x42 cm)) |
| Kind | KIND | ManchetType | 2.16.840.1.113883.2.4.3.11.60.40.4.15.1 | Maat voor kind (Een manchet voor kinderen of voor volwassenen met een dunne arm (manchet ca. 8x21 cm)) |
| Jong kind | JONGKIND | ManchetType | 2.16.840.1.113883.2.4.3.11.60.40.4.15.1 | Maat voor jong kind (Een manchet voor jonge kinderen (manchet ca. 5x15 cm)) |
| Neonaat | NEONAAT | ManchetType | 2.16.840.1.113883.2.4.3.11.60.40.4.15.1 | Maat voor neonaat (Een manchet voor neonaten (manchet ca. 3x6 cm)) |

| «document» | PositionCodelist | | | |
|---------------------------|---|--|------------------------|----------------------------|
| Definitie | | | | |
| Datatype | | | | |
| DCM::ValueSetBinding | Extensible | | | |
| DCM::ValueSetId | 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.5 | | | |
| DCM::ValueSetInclude OTH | True | | | |
| DCM::ValueSetStatus | Active | | | |
| HCIM::ValueSetLanguage | -- | | | |
| Opties | | | | |
| HoudingCodelijst | | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.5 | | |
| Concept Name | Concept Code | Coding Syst. Name | Coding System OID | Description |
| Orthostatic body position | 10904000 | SNOMED CT | 2.16.840.1.113883.6.96 | Staande positie |
| Recumbent body position | 102538003 | SNOMED CT | 2.16.840.1.113883.6.96 | Liggende positie |
| Sitting position | 33586001 | SNOMED CT | 2.16.840.1.113883.6.96 | Zittende positie |
| Position with tilt | 272587006 | SNOMED CT | 2.16.840.1.113883.6.96 | Achteroverleunende positie |

| | | | | |
|------------------------|----------|-----------|------------------------|----------------------|
| Trendelenburg position | 34106002 | SNOMED CT | 2.16.840.1.113883.6.96 | Trendelenburgligging |
|------------------------|----------|-----------|------------------------|----------------------|

| «document» | MeasuringMethodCodelist | |
|-----------------------------|---|--|
| Definitie | | |
| Datatype | | |
| DCM::ValueSetBinding | Extensible | |
| DCM::ValueSetId | 2.16.840.1.113883.2.4.3.11.6 0.40.2.12.4.1 | |
| DCM::ValueSetInclude OTH | True | |
| DCM::ValueSetStatus | Active | |
| HCIM::ValueSetLanguage | -- | |
| Opties | | |

| MeetmethodeCodelijst | | | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.1 | |
|---|-----------------|-------------------|--|---|
| Concept Name | Concept Code | Coding Syst. Name | Coding System OID | Description |
| Non-invasief | 22762002 | SNOMED CT | 2.16.840.1.113883.6.96 | Niet-invasief [DEPRECATED] |
| Bloeddrukmeting met gebruikmaking van manchet | 371911009 | SNOMED CT | 2.16.840.1.113883.6.96 | Niet-invasief (met manchet) [DEPRECATED] |
| Invasief | 10179008 | SNOMED CT | 2.16.840.1.113883.6.96 | Invasief [DEPRECATED] |
| Invasief meten van arteriële bloeddruk | 99041000146109 | SNOMED CT | 2.16.840.1.113883.6.96 | Invasief meten van arteriële bloeddruk |
| Blood pressure measurement using manual blood pressure device with auscultation | 360671000146103 | SNOMED CT | 2.16.840.1.113883.6.96 | Handmatige bloeddrukmeting met auscultatie |
| Automatische bloeddrukmeting [DEPRECATED] | 360661000146109 | SNOMED CT | 2.16.840.1.113883.6.96 | Automatische bloeddrukmeting [DEPRECATED] |
| Measurement of blood pressure using automatic blood pressure monitor | 95691000146106 | SNOMED CT | 2.16.840.1.113883.6.96 | Niet-invasief (met automatische bloeddrukmeter) |

| «document» | MeasuringLocationCodelist | | | |
|-------------------------|---|-------------------|--|-------------|
| Definitie | | | | |
| Datatype | | | | |
| DCM::ValueSetBinding | Extensible | | | |
| DCM::ValueSetId | 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.4 | | | |
| DCM::ValueSetIncludeOTH | True | | | |
| DCM::ValueSetStatus | Active | | | |
| HCIM::ValueSetLanguage | -- | | | |
| Opties | | | | |
| MeetLocatieCodelijst | | | OID: 2.16.840.1.113883.2.4.3.11.60.40.2.12.4.4 | |
| Concept Name | Concept Code | Coding Syst. Name | Coding System OID | Description |
| Upper arm structure | 40983000 | SNOMED CT | 2.16.840.1.113883.6.96 | Bovenarm |

| | | | | |
|---------------------------|-----------|-----------|------------------------|--------------------------------|
| Right upper arm structure | 368209003 | SNOMED CT | 2.16.840.1.113883.6.96 | Rechter bovenarm [DEPRECATED] |
| Left upper arm structure | 368208006 | SNOMED CT | 2.16.840.1.113883.6.96 | Linker bovenarm [DEPRECATED] |
| Thigh structure | 68367000 | SNOMED CT | 2.16.840.1.113883.6.96 | Bovenbeen |
| Structure of right thigh | 11207009 | SNOMED CT | 2.16.840.1.113883.6.96 | Rechter bovenbeen [DEPRECATED] |
| Structure of left thigh | 61396006 | SNOMED CT | 2.16.840.1.113883.6.96 | Linker bovenbeen [DEPRECATED] |
| Wrist region structure | 8205005 | SNOMED CT | 2.16.840.1.113883.6.96 | Pols |
| Structure of right wrist | 9736006 | SNOMED CT | 2.16.840.1.113883.6.96 | Rechterpols [DEPRECATED] |
| Structure of left wrist | 5951000 | SNOMED CT | 2.16.840.1.113883.6.96 | Linkerpols [DEPRECATED] |
| Finger structure | 7569003 | SNOMED CT | 2.16.840.1.113883.6.96 | Vinger [DEPRECATED] |
| Ankle region structure | 344001 | SNOMED CT | 2.16.840.1.113883.6.96 | Enkel |
| Structure of right ankle | 6685009 | SNOMED CT | 2.16.840.1.113883.6.96 | Rechterenkel [DEPRECATED] |
| Structure of left ankle | 51636004 | SNOMED CT | 2.16.840.1.113883.6.96 | Linkerenkel [DEPRECATED] |
| Digit of hand structure | 125685002 | SNOMED CT | 2.16.840.1.113883.6.96 | Vinger (inclusief duim) |
| Lower leg structure | 30021000 | SNOMED CT | 2.16.840.1.113883.6.96 | Onderbeen |

| | Legend |
|------------------|--------|
| Definitie | |
| Datatype | |
| | |
| Opties | |

1.8 Example Instances

| AnatomischeLocatie | | | | | | |
|-------------------------|-----------------------|------------------------|------------------|--------------|--------------------|-------------|
| Bloeddruk DatumTijdstip | Systolische Bloeddruk | Diastolische Bloeddruk | Houding | Manchet Type | Latera lit Locatie | Toelichting |
| 08-02-2013 6:43 | 125 mmHg | 75 mmHg | Liggende positie | standaard | rechts | bovenarm |

| AnatomischeLocatie | | | | | | |
|-------------------------|-----------------------|------------------------|------------------|--------------|--------------------|-------------------|
| Bloeddruk DatumTijdstip | Systolische Bloeddruk | Diastolische Bloeddruk | Houding | Manchet Type | Latera lit Locatie | Toelichting |
| 07-02-2013 | 108 mmHg | 56 mmHg | Zittende positie | groot | links | pols Muis zwanger |

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. Parelsnoer DCM Bloeddruk v0.9 [Online] Beschikbaar op:
<http://www.nictiz.nl/uploaded/FILES/htmlcontent/dcm/parelsnoer/Bloeddruk%20v0.9.pdf> [Geraadpleegd: 23 februari 2015].
2. openEHR-EHR-OBSERVATION.blood_pressure.v1 [Online] Beschikbaar op:
<http://www.openehr.org/knowledge/> [Geraadpleegd: 23 februari 2015].

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.

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